CSPA

JUDGE

TRAINING

PROGRAM

JUDGE TRAINING MANUAL

Level One

JUNE 2017

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Canadian Sport Parachuting Association
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Table of Contents

Page

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ACKNOWLEDGEMENTS

The CSPA Judging Committee has prepared the Judge Training Manual under the authority granted to it by the CSPA Board of Directors.

Prior to 2016, this manual was developed and prepared by the CSPA Competition and National Teams Committee.

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LIST OF REVISIONS / CHANGES

Date	Section
June 2017	Full revision and formatting

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CHAPTER 1 – OBJECTIVES

After completing the training course based on this manual, the successful candidate will qualify as a Provincial Judge and:

- understand the Judges' Rating Program (PIM4E)
- understand the Competition Rules for the:
    - Accuracy Landing event,
    - Freefall Style event,
    - Formation Skydiving events,
    - Canopy Formation events,
    - Artistic Events,
    - Canopy Piloting events
    - Wingsuit Flying events, and
- be familiar with the CSPA Competition Rules (PIM4B)
- have completed video judging of all or some of the following: Freefall Style, Formation Skydiving, Canopy Formation, Artistic Events, Wingsuit Flying
- know how to evaluate competitor performance and mark score sheets
- be able to act as a Principal Judge in accordance with PIM 4E
- be familiar with the Electronic Scoring System

Notes:
The use of the words "he or his" in this document does not imply gender but is used in place of he/she or his/her.

If there is information contained in this Level 1 Training Manual that conflicts with information contained in the current PIM4B Competition Rules, the Competition Rules will override this manual.

CHAPTER 2 – JUDGES AND COMPETITION STAFF

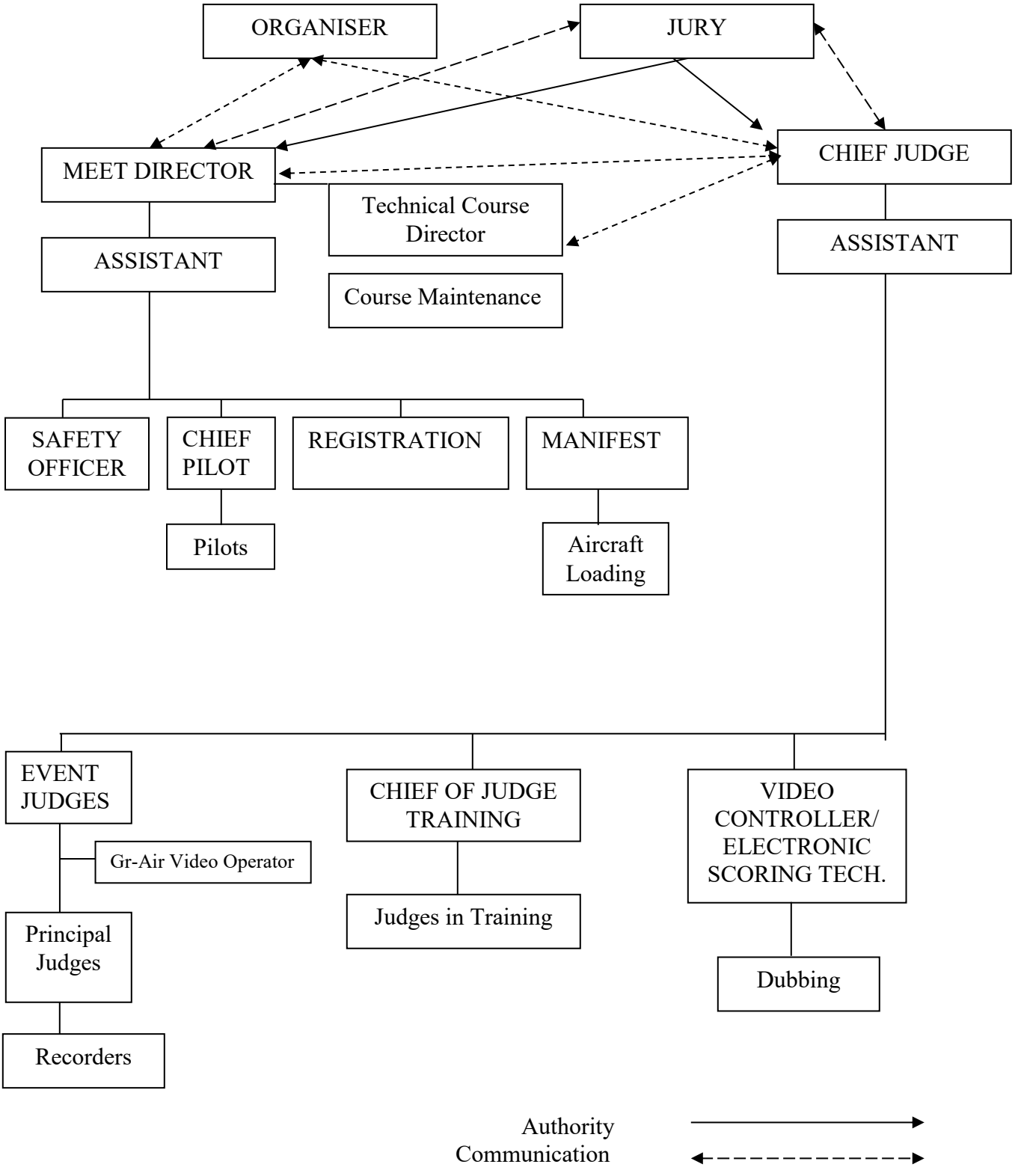
While Judges may have other responsibilities, such as observing record attempts and certifying performances for Certificate of Proficiency requirements, their main activity is judging at parachuting competitions, where they form part of the staff required to conduct the competition.

The staff required for a competition is:

- Meet Director
- Chief Judge
- Assistant Meet Director (optional)
- Assistant Chief Judge (optional)
- Technical Course Director (CP)
- Electronic Scoring Technician
- Chief Pilot
- Pilots
- Event Judges
- Principal Judges
- Chief of Judge Training
- Judges in Training
- Registration Staff
- Manifestor(s)
- Aircraft loader
- Videographer Controller
- Recorders
- Ground-air Video Operator (for style event only)
- Meet Safety Officer

Assistants provided by the organizer may be required to help the Competition Staff carry out their duties.

Organizational Structure



The responsibilities of each are as follows:

Organizer
Responsible for the basic organization of the competition, which includes:

- Provide necessary aircraft
- Selecting events to be included in the Competition
- Obtaining necessary equipment
- Appointing staff, other than judges
- Adhering to the contents of the accepted competition bid and the CSPA Hosting Manual

Jury
The Jury should be comprised of people who have had prior experience with competitions and who will neither be competing nor be involved in any other staff capacity. Their responsibility is to ensure that the competition is conducted in accordance with the established rules and to act as the final arbiter in any disagreement concerning application of the Competition Rules, re-jump requests or other organizational or competitive problems.

Meet Director
The Meet Director is responsible for the administrative conduct of the competition. In close cooperation with the Chief Judge, he will decide the order of the events and when to start and stop competition jumping. He will brief the competitors on the administrative aspects of the competition before they start, and will ensure that competitors are continually kept informed of all changes that may affect the running of the competition, i.e. start times, etc.

He will ensure that the registration of competitors is completed efficiently and quickly, so that the number of competitors in each event is known. Once all competitors have registered, he will organize the "draw" to determine the jump order for the various events. He will prepare the master lists of the competitors in each event and ensures that manifest and the Chief Judge obtains a copy of the entrants and jump order for each event.

He will work with Manifest to ensure that competition jumping continues efficiently in the correct order.

He should hold an organizational briefing of all staff under his authority before the competition begins—in order to ensure that all of them completely understand their allotted tasks.

Chief Pilot
The Chief Pilot is responsible to the Meet Director for every aspect of the operation of the aircraft, including good mechanical working order, refueling, etc. He establishes the work schedule of the pilots, to ensure the most efficient operation of all aircraft. He will also work closely with the Chief and Event Judges to ensure that jump runs, jump altitude and the interval between competitors and/or teams are as required. He will advise manifest which aircraft are to be used for a particular event, when refueling will take place, etc.

Pilots
Pilots fly the aircraft in accordance with directions from the chief pilot.

Registration
Is responsible for ensuring that all competitors are properly registered, have the correct and current documentation, have their equipment inspected and have paid the correct entry fees.

Manifest
The importance of Manifest to the success of the competition cannot be overstated. When the Meet Director has decided which event will be run, the Manifest will ascertain from the Chief Pilot which aircraft are to be used. He then organizes the competitors into aircraft loads and calls the competitors to the loading area in time to meet their aircraft, so there is an uninterrupted flow of aircraft operation. He gives a copy of each load sheet to the loader and to the Event Judge. He keeps a record of the number of jumps made by each competitor or team and makes note of any unusual occurrence, including any competitor or team missing their assigned aircraft and so forfeiting a jump. He will be advised by the Chief, Event Judge or the Jury of any competitor who is granted a re-jump, so that this can be fitted in as soon as possible.

Aircraft Loader
With the load sheet provided by Manifest, the Aircraft Loader ensures that competitors board the assigned aircraft, that their equipment has the inspection marker on it and that there are no "illegal" competitor substitutions. The Aircraft Loader must ensure that the aircraft depart according to the required schedule and if a competitor or team does not arrive in time to board the assigned aircraft he will advise Manifest.

Chief Judge (CJ)
The CJ is responsible for the evaluation of all competition jumps, the work of the Judges, and ensures that correct scores are posted and medals awarded. He chooses the panel of Judges and appoints the Event Judges. He will conduct a Conference for the Judges before the competition starts in order to explain the rules and procedures to be followed. He will give a general briefing to all the competitors before the competition starts in order to explain and clarify the general competition rules governing the competition. He consults with the Meet Director in the running of the Competition and is a member of the Safety Panel at the Competition.

Assistant Chief Judge (Assistant CJ)
Normally, unless the competition is a large international competition, an Assistant CJ would not be required. If one were required, he would assist the CJ when requested. He will work closely with the Event Judges in setting up the equipment and paperwork needed for a particular event.

Event Judge (EJ)
An EJ is responsible for the direction of the Judges during an event and will brief the Judges, during the conference, on the procedures to be followed during the event. The EJ will assign duties to the Judges for each round of the event, and is responsible for the conduct of the event and the observance of all rules pertaining thereto. He will give a briefing to the competitors before the event in order to explain and clarify the rules for that particular event. He will also control and coordinate the scores for the event. In conjunction with the CJ, he ensures that the results are properly compiled, that the final aggregate scores and placings are correct, and that the scores are posted promptly.

Principal Judges
Principal Judges will be present when required by the CJ or EJ and will work as directed by them. They must be thoroughly familiar with and knowledgeable of the competition rules. They should be present at competitor briefings.

Chief of Judge Training
The Chief of Judge Training (CJT) will conduct the training course, if one is held, for the Judges in Training and will work closely with the CJ in order to ensure that all requirements are satisfied.

Judges in Training
The Judges in Training shall be present when required by the CJT and will work as directed by him. Judges in Training will work alongside the panel of judges under the direction of the CJT but must not interrupt, interfere or influence the principal judges.

Recorders
Recorders act as Judge's secretaries, writing information on score sheets or observation sheets as required. In the accuracy events, two recorders record the scores, which are then read back to and confirmed by the Judges.

Video Operator
The video operator will work with the Chief and/or Event Judge to ensure that each freefall style jump is properly recorded so as to be sufficiently judgeable on screen. If he is adequately experienced, he may take over the job of guiding the aircraft and giving exit commands.

Video Controller
A Video Controller will be appointed by the Organizer prior to the start of the competition. The Video Controller will inspect a team's video equipment to verify that it meets the performance requirements as determined by him. Inspections may be made at any time during the competition at a time that does not interfere with a team's performance, as determined by the Event Judge. If any video equipment does not meet the performance requirements as determined by the Video Controller, this equipment will be deemed to be unusable for the competition. The Video Controller shall be responsible for ensuring the timely download of images recorded during competition jumps.

Meet Safety Officer
Is responsible for equipment inspection prior to competition and maintenance of safety standards during the competition.

CHAPTER 3 – CSPA COMPETITION MANUAL

The CSPA Competition Manual, in its many parts, contains the following information:

PIM #	TITLE
PIM 4A	The Canadian National Parachuting Championships - Hosting Manual
PIM 4Bs + Apps.	The Canadian National Parachuting Championships - Competition Rules
PIM 4D	CSPA Canadian Parachuting Records
PIM 4D App. I	Parachuting Record Registration Form (F114)
PIM 4D App. II	CSPA Canadian Records - Current Records
PIM 4D App. III	CSPA Canadian Records - Old and/or Retired Records
PIM 4E	CSPA Judge Rating Program
PIM 4E App. I	List of Rated Judges
PIM 4E App. II	Judge's Rating Application Form
PIM 4E App. III	Judge's Rating - Annual Validation Form
PIM 4E App. IV	Provincial Judge's Portfolio
PIM 4E App. V	Standard Report Form
PIM 4F	National Teams Committee Policy & Procedures
PIM 4F App. I	National Teams - Athlete Agreement
PIM 4F App. II	Yearly Training Plan
PIM 4F App. III	Canadian National Team Performances at WPC's
PIM 4F App. IV	SNT Member Report
PIM 4F App. V	Athlete Evaluation Database
PIM 4G	CNTC Manual Policy & Procedures

Manuals are updated annually in accordance with changes to the FAI rules, submissions from judges after the Nationals and after the National Judge's Annual Seminar. As well, with the addition of new disciplines and at the direction or discretion of the Judging Committee or Competition and National Teams Committee.

If you have not already done so, you should obtain a copy of PIM4B and thoroughly review it as the information contained therein is of utmost importance to all Judges, no matter what their skill level or experience. Manuals are available online.

CHAPTER 4 – COMPETITION EVENTS

4.1. Accuracy Events

4.1.1. Accuracy Landing Event

The individual accuracy event involves parachutists, (generally four to a pass of the aircraft), and jumping from 4000', opening their parachutes after delays of 0 to 5 seconds and attempting to land on or as close as possible to the target center, which is placed on a "tuffet".

Accuracy Event Equipment:

The tuffet:
A foam or airbag that meet the following criteria:

Diameter	Approximately 5m
Thickness	A minimum of 30cm
Compressibility	0.15 – 0.20 kp/sq cm
Colour	Any colour
Cover	Continuous to prevent snagging

Automatic Measuring Device.
The AMD measures in intervals of one (1) cm, out to a distance of 16cm from the edge of the dead-centre disc—some older models only measure to 15cm. The Judges' responsibility is to determine if the first point of contact was on the AMD and if so, the reading is the score awarded (provided of course, that the Judges are satisfied that the pad is functioning properly).

Both the top and bottom of the AMD pad are covered in protective material and the pad is of flexible but robust construction. A simple description of the operation of the pad is as follows:

- When pressure is applied to a point on the pad, this triggers the particular circuit and automatically cancels the other circuits. Hence, once the read-out receives a signal, no further signals can be received from the circuitry. Hence, the system reacts only to the pressure of the first point of contact.

To be accurate, the pad must be sensitive enough to measure the point of contact, as opposed to the first point of pressure. To illustrate this: suppose the jumper is slightly off to one side and in reaching for the dead centre disc, brushes the pad (point of contact) and then the foot rolls across the pad (creating pressure on the circuitry). The pad should be able to register the first contact point and not react only to subsequent pressure. If the pad is deficient in this respect the jumper would like to strike the pad with the proper technique to ensure the point of contact is the same as the point of pressure.

Windsocks:
Two windsocks are required as aids to the competitors. One windsock, which is non-sensitive, capable of registering wind of at least 2m/s is required to be erected approximately 50 metres of the target—at canopy height. It should be a minimum length of 4 m, a minimum inlet diameter of 600mm and a minimum height of 6 m.

A second wind direction indicator (streamer) responsive to winds less than 2m/s is placed within 20 metres of the target, the position decided by the Event Judge, so it may be seen by competitors during their final approach.

Anenometer:
A wind-measuring device capable of measuring both wind speed in m/s as well as wind direction.

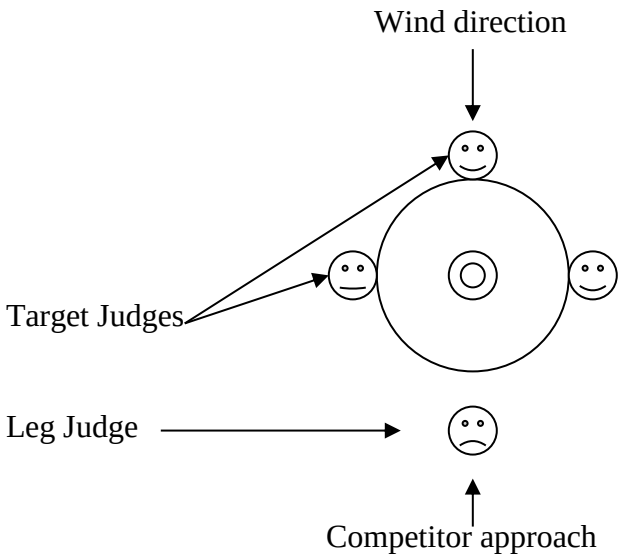
Evaluation of Exit/Opening Point:
The competitor must be given the opportunity to evaluate the exit/opening point before making his/her jump. At the start of the event, or if there is an interruption of more than 1 hour, or there is a significant change in wind direction, the evaluation is made by use of a wind drift indicator (WDI). The WDI (normally a length of crepe paper, weighted at one end, so as to have approximately the same rate of descent as the majority of canopies being used) is dropped at the designated opening altitude provided for in the event rules by a judge or an experienced parachutist appointed by the Event Judge. Normally, two wind drifts are dropped, in case one malfunctions or does not work for some reason. Once the event is under way and continues without interruption, no further WDI's need to be dropped, as competitors can observe the performance of other competitors' canopies.

Although there is no specific requirement to do so, it is accepted practice that a Judge or experienced parachutist will also jump, so as to afford the opportunity of observation by the competitors of accuracy canopies in the air before they are required to jump. It follows therefore that the persons, who do jump, should be of reasonable skill level so that their performance can be of some benefit to the competitors.

An aerial photograph or plan of the drop zone must be available so the landing point of the wind drift indicator can be marked to show the competitors the distance and direction of its travel. The wind drift indicator should be dropped directly over the target.

Judging:

Arrangement of Judges at Target.
There will be a minimum of three judges arranged around the target area (See Diagram ~~1~~below). If four are used, one of the judges will normally be a "leg" judge positioned on the wind line, either up-wind or down-wind between 5 and ten meters from target center, to assist in determining the first point of contact with the surface. The opinion of the "leg" judge is used if there is no majority decision (i.e. 3-0 or 2-1) by the three primary judges. A second leg judge may also be used (if there are an adequate number of judges available.) This further prevents the possibility of a rejump needing to be offered if the primary leg judge cannot make a decision either). To provide consistency for all jumpers, a round must use the same number of judges throughout.



Assuming an ideal situation, where the jumper approaches the target directly up the wind line, the judges at the target will space themselves evenly so as not to obstruct the view of the competitor. They must be in positions that enable them to rotate with any wind shifts—maintaining a "triangle" shape. The "leg" judge is several meters back from the edge of the target (tuffet). A Judge in Training would shadow one of the other judges or take up a position as directed by the Event Judge.

It is important to note that the target judges should never place their bodies between the competitor and the target and should be positioned so that their shadows do not fall over the AMD, in order that the competitor has a clear uninterrupted view of the target center at all times.

Triangle Concept.
The "Triangle" refers to the shape of the imaginary figure that would be obtained if lines were drawn between the three Judges around the target. Under normal circumstances, the triangle formation remains intact, all through the jumper's decent and approach. As the jumper moves from side to side (or even if doing a complete circle around the target) the triangle rotates around the target center, so that the judges always remain in the same position relative to the jumper and the line of his likely approach. An added benefit is that at no time is a Judge's body between the jumper and the AMD.

The triangle will work well for an experienced jumper, whose canopy work and approach are predictable. Where, however, the jumper makes a wild or semi-controlled approach, the triangle will of necessity have to break up and react to ever changing circumstances, remembering at all times to avoid the appearance of disorganization (or, worse yet, panic) and giving the jumper a clear view of the target.

Use of Fichets.
For the Intermediate or Junior class, where measuring is required, the "fichet" is used. It is a dull edged rod of small diameter, about 30cm long. (similar to a chop stick)

The fichet is used to indicate the line of sight from the Judge to and through the first point of body contact with the surface. To indicate the line of sight, the Judge lays the fichet flat on the surface, pointing at the perceived first point of contact. The contact point is determined by triangulation, since each Judge can indicate with considerable precision the line from him through the point. Where the lines intersect is the point of contact. A measurement to the edge of the dead center disc is then taken.

Quietness and Movement.
The Judges at the target must be aware that there must be no suggestion of interference with or disturbance of the jumper's final approach. They must therefore be particularly careful to keep movement to a minimum (keeping the triangle concept intact) and any movement must be slow, without any sudden or jerky motion. For the same reason, conversation should be kept to a minimum and any necessary conversation should be quiet. There must especially be no waving of arms, or anything else that might be considered to be a signal or distraction to the competitor.

When the jumper has landed, there should be no exclamations or loud discussion at any time, as the Judges need to foster the jumper's confidence by demonstrating unity and competence throughout the competition. The jumper must not hear one Judge declare a score, only to later find the official score being given as something different.

Low Profile.
In addition to quietness and lack of movement, the Judges must maintain a low profile. There are two reasons for this. The first is to present no visible distraction to the jumper. The second is even more important. That is, in order to have the best view and line of sight to the point of contact, the eye must be as low and close to the level of the tuffet as possible.

In order to get the head and eye as low as possible it will be necessary to crouch or kneel, and hence, the sign of dirty knees is an indication that the Judge is doing the job properly. This applies to all Judges involved in determining the point of first contact.

Determining the score:
In the Open Event the score obtained is that which the Automatic Measuring Device (AMD) indicates—off AMD landings are scored as 16cm. Junior and Intermediate competitors landing off the AMD are measured manually from the edge of the dead center disc to the edge of the tuffet. It is important to note that the measurement is made from the first point of body contact with the surface. Pieces of equipment, which may be hanging loose, are ignored, but the body includes shoes, boots, gloves and jumpsuit covering the butt, elbows, etc.

a) if the Judges determine that both feet landed simultaneously, the contact point would be given to the closest foot;
b) if two Judges give an indication that the competitor landed on the AMD and one determines the first point of contact was off the AMD, the competitor would receive the score indicated by the AMD. If one indicates a landing on the AMD and two say first point of contact is off the AMD then the competitor receives a score of 16cm—or if Junior or Intermediate, the measured score.
c) if one Judge indicates the landing is on the AMD, a second Judge indicates the landing is off the AMD and one Judge was unable to determine the first point of contact with the surface, then the opinion of the "leg" Judge would be used to determine the score.

Inspection of Operation of AMD Pad.
Since the operation of the pad is automatic, it must be inspected regularly to ensure proper and correct functioning. This is normally done by applying pressure on the pad across a radial at 1cm intervals, to test all the circuits. If the readings obtained are what is expected, the pad is taken to be functioning correctly. Excessive pressure could damage the pad or if excessive pressure is needed to activate the readout, it is likely the pad is nearing the end of its useful life.

In addition, the wiring and other equipment should also be inspected to ensure no possible malfunction. These inspections should be done at regular intervals and at any time an abnormal reading is obtained.

Reliance on AMD (Pad).
The pad is an automatic system. In order to ensure consistency of judging and measuring for each jumper, the Judges determine only if the point of contact was on the pad. If it was and the pad is determined to be functioning correctly, then the pad reading is the score awarded.

Provided the pad is functioning correctly, the Judges may not and will not override the pad. The Judges will rely on the read-out from the pad.

Centering the Pad.
The best method is using bungie cords (1/4"), attached to the rings mounted on the underside of the pad, evenly stretched across the target (tuffet) and either attached to the tuffet itself or staked to the ground. The bungie cord is strong enough to hold the pad in position. After a competitor landing, if needed, the pad can be raised and then simply dropped into position and if the bungie cords are tied off with equal tension it will center itself automatically. Or, in the off-chance a control pad (back-foot pad) is used, the AMD pad may be attached directly to the control pad.

Event Staff Required.
The staff required for the accuracy event are as follows:

- Event Judge (1)
- Target Judges (3)
- Leg Judge (1 or 2)
- Observing Judge (1)
- Anemometer Judge (1)
- AMD / Reset Judge (1)
- Recorders (2 volunteers)

There may be Judges in Training positioned at the target area.

If there is a staff shortage, a Judge may be asked to control more than one position. (At a minimum, 1 event judge, 3 target judges, 1 observing/anemometer judge as well as 2 recorders)

Event Staff Duties:
The duties of each member of staff are:

a) Event Judge. The Event Judge has overall responsibility for the conduct of the event. He will brief the competitors before the event and explain the rules and specific items that need to be emphasized. He assigns the Judges tasks and ensures the regular rotation of duties. He controls and monitors all the activity and is in radio contact with the aircraft and manifest in the event that a break in the action is required. He also ensures the correct copying of scores from the recorders' sheets to the master score sheet, and the subsequent publication of the official results. The Event Judge also manages any rejump requests.

b) Target Judges. Their responsibility is the control of the target and determination of the competitor's first point of contact. One of the target judges is the "Pit Boss", who determines the score after checking with the other target judges. He then calls the score to the recorders. He will also check the call back by the recorder. All target judges should be aware, at all times, of the location of the jumpers in the air and should observe the descent where possible, in the event that an incident occurs, which requires subsequent discussion.

c) Leg Judge. The Leg Judge is positioned inside the 20m circle as directed by the pit boss and has the responsibility of observing which part of the competitors body first comes in contact with the surface. If the majority of target Judges all agree, the leg Judge's opinion will not be required. Where there is no majority, the leg Judge's opinion may be taken into account.

d) Anemometer Judge. The responsibility of this Judge is to observe the anemometer at all times, and to note wind speed and direction when a competitor is landing. There is a responsibility to watch for changes in direction if the winds are over 2m/sec. If the wind approaches the designated limit, this Judge must be especially aware of momentary gusts that may go over the limit and if so, inform the Event Judge. A written record must be made of all observations, including the time of landing.

e) Observing Judge. This Judge has a multi-part responsibility, which requires observing each jumper from exit to landing and making a written record of all observations. The specific points to be observed and noted are:
    i. Exit point (in normal location, to left or right, short or long)

ii. Length of delay
iii. Canopy open and flying properly or malfunction condition
iv. Canopy control
v. Interference with other jumpers (whose fault?)
vi. Spacing between exits
vii. Affect of upper winds and ground winds on canopy performance, especially during final approach
viii. Time of landing

A written record is made of any observations for each jumper, even if there is nothing wrong, as this written record is of vital importance should there be a subsequent rejump request.

At many competitions two Judges (a Principal and a Training Judge, or two Principal Judges) will combine the functions of Observing and Anemometer Judge, aiding each other and thereby providing a second opinion in any doubtful matters.

The general rule is that anything, however small or seemingly insignificant, is worthy of noting down, since these remarks may be the only evidence available for subsequent discussions on the merits of a rejump request.

If the Anemometer is automatic and recording, a permanent record can be made of both speed and direction, and the moment and time of landing can be noted on the recording graph paper. This again, may be valuable evidence in the event of a rejump request.

f) AMD/Reset Judge. The basic responsibility of this Judge is to control and monitor the AMD read-out equipment. He will watch the readout as the jumper lands to verify the initial score that is shown (in the event that the number on the readout disappears, or changes to another number.) He will also confirm to the target Judges, when they have agreed that the first point of contact was on the electronic pad, the score given by the read-out. He may also be responsible for resetting the readout after the score has been recorded correctly. If the reset and read-out equipment is operated by someone who is not a member of the judging staff, the Event Judge will monitor and control this activity.

g) Recorders: There will normally be two recorders. Their job is to record the score assessed by the judges and called out by the Pit Boss. The recorders will write down the jumper helmet number (at small competitions, it may be possible to also write down the jumper's name), the canopy colour (for future reference, in case of any discrepancy) and the score awarded. Each recorder will call back to the Pit Boss, the score written down to ensure what was written down is the score called out. The recording function is a somewhat tedious, but vitally important, task. At a smaller competition, the recorder may be asked to handle the "reset" button.

Paperwork Required.
There are three separate permanent records required:
a) Observing and Anemometer Judges recording sheets
b) Recorders' Score Sheet
c) Master Score Sheet
(ask your Course Instructor for copies)

The recorders' score sheets are given to the Event Judge, who then compares the two separate sheets to determine if there are any discrepancies, and if not, then ensures or supervises correct copying of the scores to the Master Score Sheet.

If there is a discrepancy between the two recorder sheets, and if the reason for the discrepancy cannot be resolved (i.e., it is generally not possible to determine which sheet has the correct information), a rejump would normally be offered. If he refuses to make a rejump, he will be given a score of 16 cm.

The copying from the recorders' sheets to the master score sheets must then be checked and double-checked for accuracy. The master score sheet is kept by the Event Judge.

Once the last round has been completed and the master score sheet is also completed, the individual aggregate scores are totaled and placings are tabulated. This calculation should be checked several times and then certified as being correct by both the Event Judge and the Chief Judge. The results may then be declared official and final.

The recorder sheets are retained until the Nationals Competition is complete, in case a competitor has a question about his score. Any doubts may then be clarified.

Wave Off Procedures.
The "wave off" refers to the procedure whereby the approaching competitor is prevented from completing his target approach. The reasons are many and include:

a) injured competitor at target
b) competitors too close together
c) interference during final approach
d) deflation of tuffet

The "wave off" must be a clear and unmistakable signal to the jumper affected. Normally, someone in the target area will point to an approaching competitor and wave a large, coloured (usually red) flag. This is the only signal that should be used and the competitors must be advised that they should ignore all other signals (arm waving, etc.). It is imperative that the Judges be warned that they must do nothing that could be construed as a signal of any kind to the competitor. Smoke bombs may also be used to signal competitors who are still at altitude and unable to see the flag.

Preparation of Target Area.
It is important that the target area be properly prepared before and during the competition jumping, both for competitor safety and judging facility. The tuffet should be kept flat as possible. Tuffet covering material sometimes becomes bunched up after several competitor landings and needs smoothing. Some air tuffets can become rounded at the center, which is OK to some degree but usually means there is more chance the competitor may "bounce" off the tuffet and injure themselves. This of course does not mean the competitor will not get a "back foot" or "butt" strike, but it should not be because the target area is concave. The surface, if anything other than flat, should be convex.

Audience:
Of importance, no matter what the level of competition, arrangements must be made for keeping the audience and other competitors clear of the target area. This can be done with ropes and stakes (break-away), with hay bales or by clearly marking the required circles with environmentally friendly paint. Whatever the method used, competitor safety must be considered at all times.

4.1.2. Team Accuracy Event

This event is run only after the Individual Accuracy Event is complete or if it is not possible (due to ceiling restrictions) to run any other event or all other events are completed. Each team consists of four parachutists. However, a team may register five names, any four of whom may jump in any round. Each team will make three jumps from 1100 meters (3500 ft), all of which shall be scored. Two rounds constitute a valid event.

Ghost Jumpers – In the event there are not enough competitors to make up full four person teams, other jumpers may enter a team made up of themselves and a maximum of three 'ghost jumpers'. The ghost jumpers will be randomly selected by secret draw, from all jumpers in the event. The competitor numbers (excluding Guests) will be sealed in a container at the start of the event. At the end of the event the EJ will draw the appropriate amount of competitor numbers from the container. The scores of these competitors will be the scores to make the said team complete. Medals are only presented to the actual bodies on the 'ghost jumpers' team.

All four team members jump on the same pass, and interference is not grounds for a rejump. One person is designated as the Team Captain and he will sign (or initial) the recorder's sheet to indicate he agrees with the team's scores.

All rules for the Individual Accuracy Landing Event apply to the Team Accuracy event except if the AMD cannot be repositioned because of insufficient separation between team members. If the team member lands on the AMD, he receives the score indicated. If the AMD cannot be reset, the score will be 16 cm. If the team member does not land on the AMD, the score will be 16 cm.

Determining the Winner:
The four scores of each team member are added to have a total score for that round for the team. The team with the lowest cumulative score after the three rounds is the winning team.

4.1.3. Sport Accuracy Event
(Handout: target diagram)

The Individual Accuracy Event will take precedence over the Sport Accuracy Event. The Sport Accuracy event may be run if it is not possible, due to ceiling restrictions, to run any other event or other events are completed.

The Objective is for competitors using high performance canopies to land standing up within a 15-meter circle with their first point of contact (FPC) on/or as close as possible to the dead center (DC).

Each competitor will make three jumps from 1100 meters (3500 ft), all of which shall be scored. Two rounds will constitute a valid event. Individual passes will not be used unless deemed appropriate be the Meet Director.

As in the other Accuracy events, the dropping of wind indicators is not necessary if there have been any canopies in the air within the last 60 minutes.

Target:
The dead centre shall be a flat disc of approximately 20 cm diameter set on flat ground. Concentric circles will be marked out with chalk or other suitable material with approximate radius five, ten and fifteen metres from the edge of the disc.

Scoring:
- zero (0) points – FPC on the dead center disc (DC) and at least one foot remains on the DC;
- one (1) point – FPC on the DC and competitor does not cross the 10 m circle;
- two (2) points – FPC between the DC and 5 m and competitor does not cross the 10 m circle;
- three (3) points – FPC between 5 m and 10 m and competitor does not cross the 15 m circle;
- four (4) points – FPC between 10 m and 15 m and competitor does not cross the 15 m circle;
- ten (10) points – FPC outside the 15 m circle

If the FPC is directly on the 10m or 15m circle marking, that is not considered to be crossing that circle, unless further forward motion results in contact with the ground outside the particular circle.

Penalty Points:
Competitors are assessed penalty points as follows:
- 5 points - crossing the 10m or 15m circle (as applicable) before coming to a complete stop if the first FPC has been within the 15m circle;
- 5 points – a part of the competitor's body other than the feet comes into contact with the ground during the landing, which ends when the competitor comes to a complete stop;

Judging and scoring:
Judges record each competitors' FPC points, penalty points and total score, which is equal to the sum of the FPC points and penalty points for each round. At the end of all completed rounds, the competitor with the lowest cumulative total score is the Sport Accuracy Champion.

Safety:
If the Event Judge, Chief Judge or MSO determines that a competitor flies his canopy in a way that endangers himself or others on the ground or performs in an unsafe or irresponsible manner, he may be disqualified from the competition.

4.2. Freefall Style

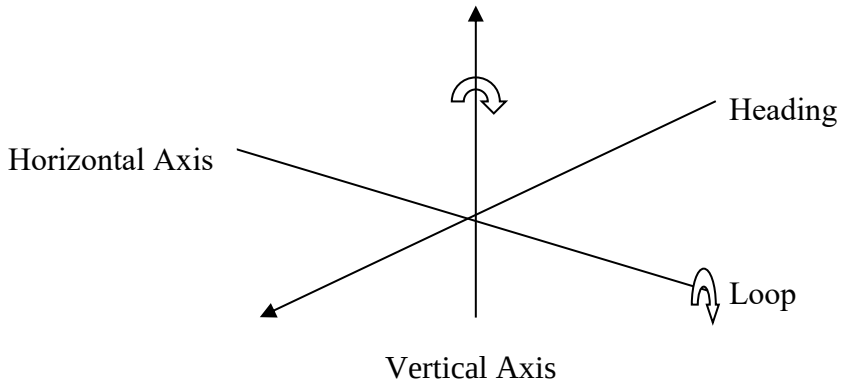
The Freefall Style event is a single parachutist jumping from 2,200m (7,200 ft) and performing a predetermined series of maneuvers relative to a required heading. The Judges evaluate the precision of the maneuvers and time to complete the series. Time penalties are assigned to imprecise or incorrect maneuvers. There are five rounds in each event. The first four rounds are drawn from the four series (below) and the fifth round is the competitor's choice of series.

A Style Series.
A style series is a sequence of freefall maneuvers performed in predetermined order. The competitor is required to do two 360 degree turns, a back loop, two 360 degree turns and a back loop. There are four prescribed series:

1st series	2nd series	3rd series	4th series
Left turn	Right turn	Left turn	Right turn
Right turn	Left turn	Right turn	Left turn
Back loop	Back loop	Back loop	Back loop
Left turn	Right turn	Right turn	Left turn
Right turn	Left turn	Left turn	Right turn
Back loop	Back loop	Back loop	Back loop

All the maneuvers are performed relative to a particular heading, and the two axes at right angles to that heading.

TURN: a manoeuvre that is a 360-degree rotation in the horizontal plane.
LOOP: a manoeuvre that is a 360-degree rotation in a vertical plane.



The definitions refer to the body only (torso from neck to crotch), with no mention of the head, arms or legs. What the outer extremities do is irrelevant from a Judge's standpoint.

Penalties.
As we have seen, the score for the jump includes time awarded for penalties. Penalties are assessed when the six maneuvers are performed imprecisely with respect to the heading and axes previously mentioned. Certain imprecisions are not penalized, such as +/— 30 degrees from a given axis.

The penalties that can be assessed are as follows:

a) Off-heading (Arrow) into 1st and 3rd turns
b) Undershoot- turns
c) Overshoot – turns
d) Deviations - turns
e) Deviation - loops
f) Off heading – finish of 2nd loop
g) Completion of 2nd loop before reaching horizontal level
h) Continuation of 2nd loop past horizontal level

Each penalty is broken down into degrees of severity, as follows:

Type	Degrees	Penalty
Arrow and Undershoot :	1-5	0.10 seconds
	6-10	0.20 seconds
	11-15	0.30 seconds
	16-20	0.40 seconds
	21-25	0.50 seconds
	75	1.50 seconds

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	76-80	1.60 seconds
	81-85	1.70 seconds
	86-90	1.80 seconds
	greater than 90	16.0 seconds
Overshoots:	1-180	no penalty
	greater than 180	16.0 seconds

Deviations, or
Last Backloop Off Heading (S), or
Completion of first loop before reaching the horizontal level (-), or
Continuation of first loop after passing the horizontal level (+), or
Completion of last loop before reaching the horizontal level (-), or
Continuation of last loop after passing the horizontal level (+)

1-30	no penalty
31-60	0.40 seconds
61-90	1.50 seconds
greater than 90	16.0 seconds

Omitted maneuver	16.0 seconds
Added maneuver	16.0 seconds
Incorrect series	16.0 seconds

(Note: Diagrams of these degrees can be found in the Diagram Folder)

The signs used on the score sheet to describe the series are:

Correct maneuver	√
Undershoot	—
Overshoot	+
Deviation in turn or loop	D
Off heading into 1st & 3rd turns	→
Completion of 2nd loop off heading	S
Completion of 2nd loop before reaching horizontal	—
Continuation of 2nd loop past horizontal	+
Omitted maneuver	ZO
Added manoeuvre	ZA
Combined with →, +, -, D, S to show penalty in excess of allowable limits	Z
Not judgeable	NJ
No time	NT

L and R will be used to denote the directions of the turns

NOTE that:	Overshoot	0-180°
	Last Back loop off Heading (S)	0-30
	Deviation (D)	0-30
	"—" and "+" Penalty	0-30

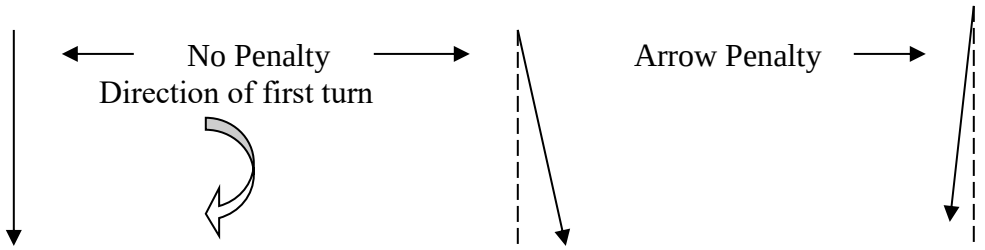
acquire no penalty. These are imprecisions that are allowed, considered as not to give any particular advantage to the jumper.

The maximum score that can be awarded is 16.00 seconds.

Explanation of the penalties: (letters refer to list at beginning of section).

a) <u>Arrow into the turns:</u>
First Turn: The jumper will normally fall away from the aircraft for several seconds before starting the series. If the body is facing the heading indicator or turned slightly away from the direction of the first turn (1 + 2) no penalty is assessable. If

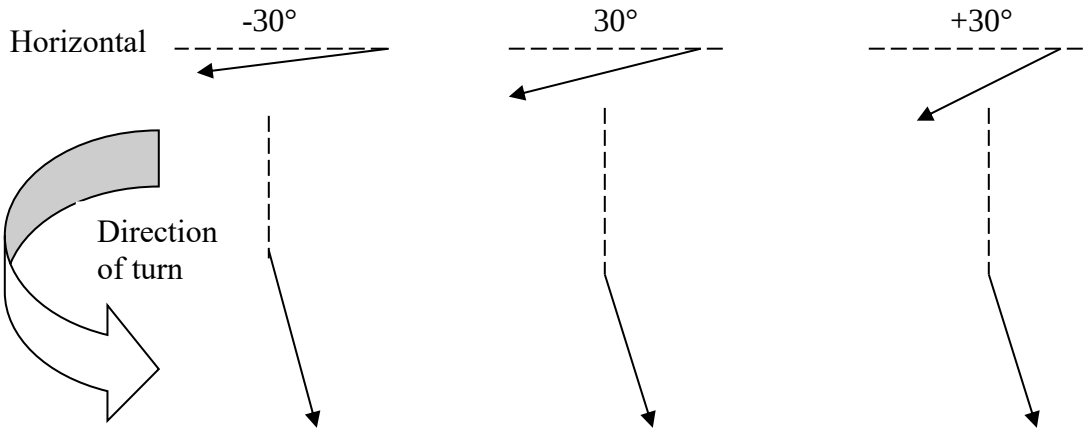
however, the body is already turned toward the direction of the first turn of the series (3) when the series is commenced, an advantage is gained and an arrow penalty is assessed.



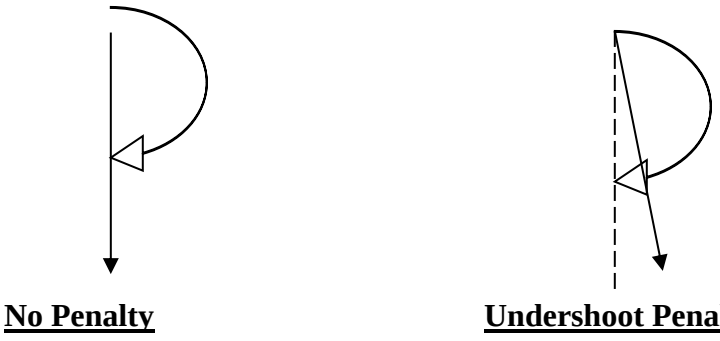
The penalty assessed is the size of the angle (a) at the instant of start. This penalty is considered an undershoot for collation purposes.

Third Turn: This penalty is essentially the same as the first, except that the body is completing a back loop. If the turn is started before the back loop is completed, then the arrow penalty applies. It is very important to note that the back loop is completed when the body is 30 degrees below the horizontal, as +/- 30 degrees is a penalty-free zone. Hence, if the turn is started before the body reaches the 30 degree down pitch position, a penalty would apply. The size of the penalty is the angle of the body to the heading as it passes through the 30 degree down pitch.

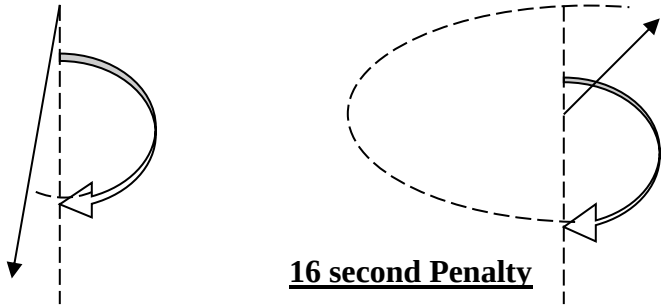
If the turn is started after the body passes through the 30 degree down pitch, no penalty is assessed.



b) Undershoot (all turns):
Each turn should be terminated on heading. If the turn is stopped short, this constitutes an advantage and a penalty is assessed.



c) Overshoot (all turns):
If the turn continues past the heading, the jumper is in effect penalizing himself, having farther to travel to complete the next turn. If the overshoot is less than 180 degrees no action is taken. If the overshoot is greater than 180 degrees, the stylist is not considered to be in control and is not executing the required performance correctly and will be penalized accordingly. (16 seconds)



No Penalty **16 second Penalty**

Deviations: A deviation is defined as the execution of a maneuver with the body tilted (pitch) or banked (roll). A pitch or roll up or down within the limits of +/- 30 degrees is allowed, as it gives no advantage. Greater than 30 degrees gives an advantage and is penalized accordingly.

d) Deviation (Turns):
A deviation on a turn can be pitch or roll, although pitch is the more likely. Pitch can occur at any time during a turn and could, under certain circumstances, occur at two instances during one turn. However, only one "D" (deviation) penalty would be assessed, equal to the largest deviation occurring during the turn.

It is necessary to discuss two special cases:

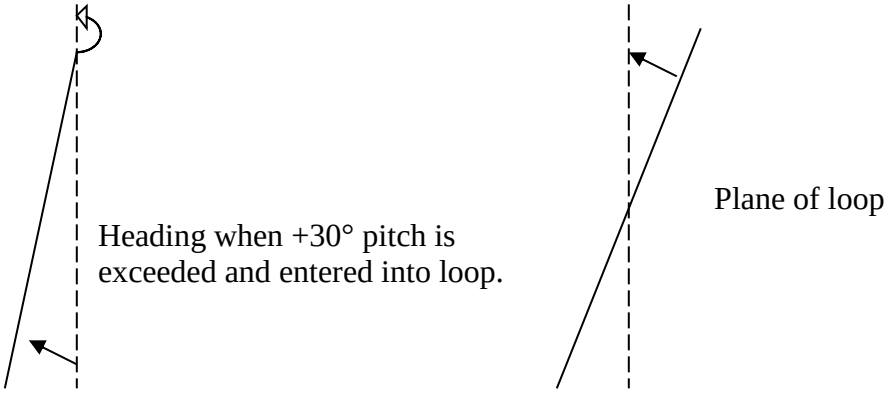
1) Transition from the 2nd turn to the 1st loop (or 4th turn to the 2nd loop):

   If the turn is completed to the heading with the body remaining within the +/- 30 degree pitch range, and the back loop commences (i.e., the body pitches more than +30 degrees) after the heading is attained, no penalty is assessed.

   If, however, the body pitches up over +30 degree before the heading is reached, there are two alternative penalties that could be assessed:

   i. An undershoot, as the loop commences when +30 degree is reached, which is before the heading is attained. Hence, the penalty would be the undershoot angle at the instant the body passes through the + 30 degree pitch angle.
   ii. A deviation, which would be the pitch angle at the instant the body attains the heading, no matter at what stage of rotation through the loop.

   Further analysis leads to the conclusion that (ii) makes no sense, as the whole loop may in fact be performed in a plane, tilted away from the required heading. Hence, it is impossible to call a pitch penalty that has any meaning.
   i.e., (seen from above)



If the loop is performed in this plane, there would be an "off heading into the third turn" penalty as well. Hence, in this situation, the undershoot penalty is the one assessed.

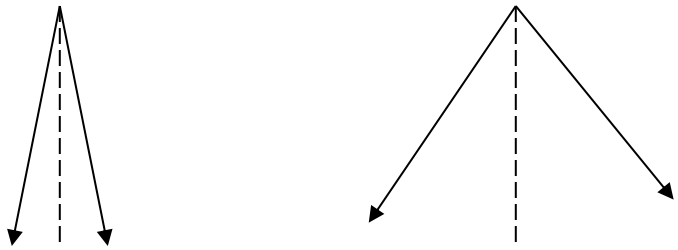
2) Transition from the 1st loop to the 3rd turn:

As the first loop is completed, the 3rd turn may be started as the body comes into the horizontal position. The important factor is to determine whether the body started into the direction of the turn before or after the body reached the – 30 degree pitch position.

If the turn is initiated before the – 30 degree pitch is reached, the penalty assessed will be the angle off heading as the body passes through the – 30 degree pitch position. A pitch deviation is not called in this situation.

e) Deviation (Loops):
Since a loop is essentially a pitch maneuver (albeit through 360 degrees), the deviation that is penalized is the rolling of the body about an axis through the centre of the body (neck to crotch). Recognizing a body roll on a loop takes practice and must be seen, so no description is attempted.

f) Off Heading:
If the loop is completed with the body more than 30 degrees off heading in either direction, a penalty is assessed.



Less than 30° - no penalty More than 30° - penalty

g) Last Backloop completed before horizontal:
The end of the series is deemed to occur at the earliest of the completion of the back loop and passing through the horizontal level. If the jumper were able to stop/complete the back loop before reaching the horizontal, a time advantage would be gained. If the down pitch at completion is greater than 30 degrees, a penalty is assessed as an undue advantage has been gained.

h) Last Backloop continues past horizontal:
It is considered that a loop is a 360 degree rotation about the horizontal axis and control is to be exhibited on all maneuvers. If the loop is continued past the horizontal level, it is considered that control has been lost, and if the pitch up is greater than 30 degrees, a penalty is assessed.

Evaluation.
The basic principal of style evaluation is that each maneuver must be performed exactly or within the penalty-free zones specified or a penalty must be assessed.

It is important to remember is that the Judge is only interested in the torso and what it does. The torso is the body from the neck to the crotch. The legs, arms and head must be ignored. The important thing is what is done, not how it is done. Hence, technique is not relevant.

It may be easier to think of the torso as a rectangular board, rotating about the two axes. The more the Judge can eliminate distractions (such as arm and leg movement) the easier will be the task of evaluating the performance.

It should be noted that the penalties are specified in terms of a small range of degrees. Hence, the Judge should not try to determine the exact degrees of undershoot or deviation, but rather which range of penalty applies. The ranges vary with the type of penalty.

Timing Procedures.
The timing of the series starts when the competitor starts the first maneuver, correct or not. This occurs when there is a change in the heading of the torso. A word of explanation here concerning what constitutes a change of heading. During the fall from the aircraft, the competitor will make minor adjustments to heading, as it is normally impossible to hold the exact heading.

If the stylist starts the series directly into the correct turn from the correct heading this presents no problem from the point of view of timing.

If, however, the stylist starts the series from the correct heading directly into a turn in the wrong direction, then the Judge may be caught unawares and not start the timing until the turn is well underway. This slowness will not matter as, provided all or a majority of the Judges have seen the wrong turn, the time for the series will be 16.00, so that the fact the base time is a little slow is of no consequence.

The problem to be recognized is if major heading adjustments are made during the fall. Some jumpers will attempt to gain momentum into the first turn by turning away from the turn (i.e., in the direction of the wrong turn) and then swinging through the heading in the correct direction. The rule is clear; the timing starts when the competitor changes the heading of the torso, whether in the direction of the correct figure or not. Hence, the watch must start when the first movement is made.

Similarly, a jumper may change heading into the first turn, only to stop and return to the correct heading. The rule requires that the timing start when the heading first changed.

The timing stops at the instant the back loop is completed or when the competitor passes through the horizontal level (regardless of heading). In the second case, the loop is presumably under control and the timing stop is not difficult to determine. If the loop is not under control, judgement must be exercised as to when the back loop is completed. It is theoretically possible to stop the loop before passing through the horizontal. If this does happen, the Judge would still stop the watch, but would consider the assessment of a penalty.

In the timing, the Judge must not anticipate the start or finish of the series, but operate the watch at the moment of seeing the required action.

Jumper Techniques.
As we have said before, the Judge is only concerned with what the performance is, not how it is achieved. However, a word must be said about jumper techniques and the variation that may be encountered.

The fall away from the aircraft may be done in a widespread (unlikely), fast fall position (knees and legs tucked up, with arms in to side) or a head down dive.

The wide spread is not likely to be used, and if it is, would usually create no difficulty. The fast fall position is somewhat unstable and may be accompanied by wavering of the heading. It is very easy to commence the series from this position and the Judge must expect a very quick transition from the fall position into the turn.

Remember – start the watch when the torso moves, not when the head or hands move. The direction and when the head moves is very good indication of the first turn being imminent.

The head down dive is done to pick up air speed and means the Judge will see only the rear of the jumper who is facing the horizon in front of the Judges.

There are two ways the jumper may start the series. One is by coming up into the fast fall position for a moment, in order to gain stability and orientation. This gives the Judge ample warning that the series is about to start.

The jumper may actually commence the turn directly from the dive. The Judge is given no warning and therefore must exercise great concentration. He must also determine if the jumper was off heading at the moment of initiation and whether there was a pitch deviation at the start of the turn. This gives a lot to think about!!

The technique for generating and performing turns can vary widely, from use of arms only to body tilts (watch for deviations!).

Methods such as the pulsation technique must be watched carefully, as in this, as in others, what appears to be occurring may in fact not be. The torso is the all-important factor.

There should be a process of information flow from jumper to Judge and Judge to jumper to explain the techniques used and explain how they appear to the Judge.

The techniques used are something the Judge must experience by watching style, both in competition and in training. It can only be achieved with practice, practice and then more practice.

Evaluation Procedure.
The series is viewed once at normal speed and once in slow motion— and possibly a third play if re-timing is needed. Equal concentration and attention must be paid to each maneuver so if the Judge is doubtful about a particular maneuver, the play at slow motion allows him the opportunity for a review to clarify the doubt.

Judges record the correct time on the first play, as well as confirming the correct series is performed. Assessing penalties can be made on the slow play. Each judge will perfect his own shorthand for recording penalties in their notes.

Score Sheets.
Ask your Instructor for copies of the current score sheets. You must fill in all the pertinent information required. The competitor number, round and time of day are recorded in case this needs to be checked with the manifest data in the event of a mix up in identification.

If the Judge has any observations to make, the remarks are written in a prominent place on the score sheet. The score sheet has preprinted on it all the possible penalties that could apply to that particular figure.

The series time and penalties are noted in the applicable boxes. The Judge must ensure that the score sheet is checked as being complete and correct before it is handed in.

Ensure score sheet exactly reflects your evaluation of the jump. If you have problems with your watch, never fake a time. Ask for another play for time or put "NT" in the time box. Note any irregularities and add comments in a clear area of the score sheet. If series is not completed, mark "Z" in the penalty box and put "NT" in the time box

Score Collation.
When the score sheets have been completed and checked, they are collected and given to the scorer or Event Judge. The sheets are then stapled together, so that when laid one on top of the other. The collation sheet is attached at the top.

The scorer must first ensure that the Round and Exit Numbers are the same for each sheet. If there is a discrepancy, it must be resolved before collation and before the official score is determined. The relevant information is entered on the collation sheet.

The collation scoring should be checked and rechecked by at least two other Judges to ensure correctness and accuracy.

Score Average
When using five Judges on the panel the high score and the low scores are discarded and the time for the series is the average of the three remaining median times, which are given to the nearest one hundredth of a second. If using a panel of three Judges, all three scores are averaged to obtain the score. The average time is given to the nearest one hundredth of a second, i.e.:

Total of three Median scores	Average	Final score
25.24	8.413	8.41
25.37	8.456	8.46
25.43	8.476	8.48

Master Score Sheet.
When the scoring is complete (including checking), the scores for each jumper are entered on the master score sheet. Ask for copies.

When all rounds are completed, the scores are totaled and an average calculated. The event standings are then computed. All this is

checked by, or under the guidance of, the Event Judge and Chief Judge.

Competitor exit and Video Camera

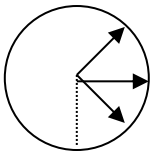
The exit point for each competitor is determined by the Event Judge and is relayed to the pilot via air-air radio. The pilot then informs the competitor (verbally or with other signals) when to exit the plane. The competitor lines up with the ground-air camera (a large coloured tarp is usually laid out in front of the camera). The competitor is given the following commands prior to exit: STAND-BY (get ready to jump) and EXIT (exit the aircraft now).

An observing judge is positioned at the video camera to monitor the following:

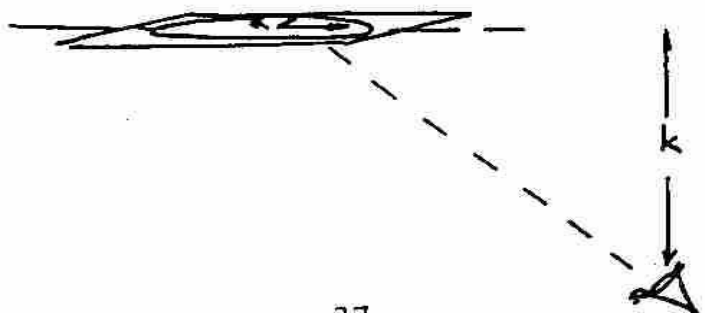
a) the ground angle at exit should be within the prescribed limits (60-80 degrees), and should be approximately the same for each jumper.
b) the jumper exits immediately when given the exit command
c) makes note of late exits, drift, etc., or any other matter which may have an effect on the competitor. The Judge must especially observe the ground angle (shown by a scale mounted on the camera) when the exit is given.

The significance of the ground angle:

The style competitor is required to execute four turn maneuvers on a horizontal plane, which is falling vertically through the air at a speed of approximately 200km/hour (or more). The most likely penalty on a turn is an undershoot or overshoot. Imagine a circle drawn on a piece of paper with various radials drawn to denote angle or under/overshoot, i.e.:



Then, hold the paper horizontally above and away from the eye, i.e.:



If the paper is vertically over the eye, the angles drawn will appear as true angles. As the paper is moved away from the eye (keeping k constant), the angles drawn will appear differently.

The apparent angle will be different from the true angle.

When using video, the Judge (in front of his television screen) has no way of knowing where the jumper is in relation to the camera and can evaluate only the picture seen. Hence, it is of crucial importance that each exit point be approximately the same so each jumper is viewed at the same relative (apparent) angle.

Benefit of Doubt.
As in other events where there is doubt in a decision or in a Judge's mind concerning the evaluation, the benefit will be given to the competitor, i.e. if there is doubt as to the cause of a late exit or freefall drift, the benefit goes to the competitor.

Winds Aloft.
The winds aloft consist of two components:

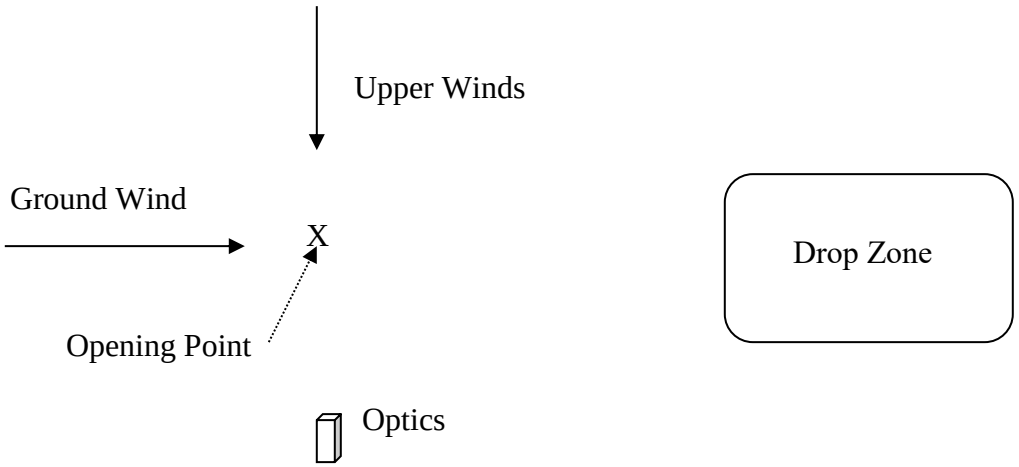
a) tail or head wind

b) cross wind
relative to the direction of flight for the jump run.

The crosswind component must be eliminated for reasons discussed below.

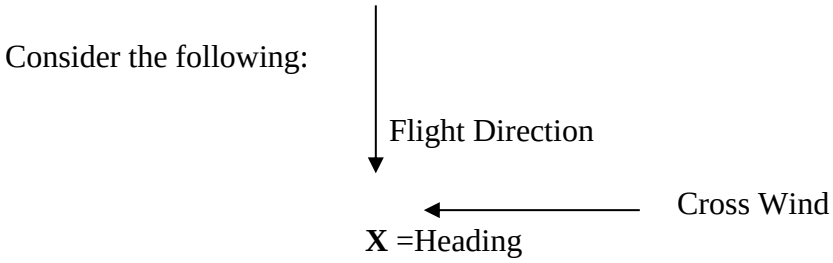
The tail or headwind component cannot be eliminated but must be allowed for in selecting the exit angle. Normally, the aircraft will fly downwind, i.e. with a tail wind, so that after opening; the jumper uses the ground wind to land on the drop zone. This enables the optics to be situated on the drop zone, which is the best location from an operation point of view.

If, however, the upper winds have a different direction to the ground winds, it may be necessary for the optics to move so that the jumpers may continue to land on the drop zone.

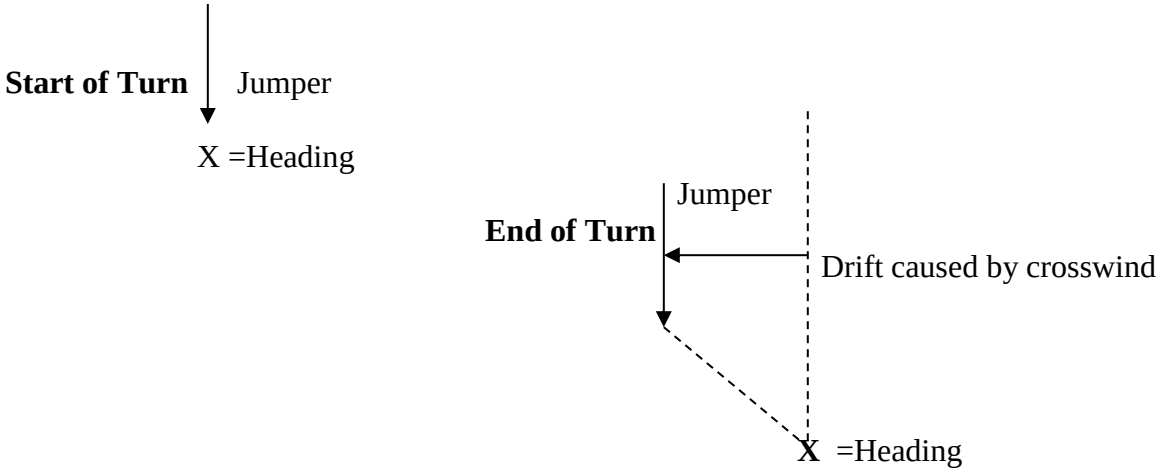


It should be noted that with a tail wind, the jumper will drift towards the optics while in freefall, whereas with a head wind the drift will be away from the optics. The former is better from an operational and evaluation viewpoint.

Cross Winds Aloft and Drift.
The elimination of a crosswind component is of extreme importance, as it has a very detrimental effect on the jumper. How is this so?



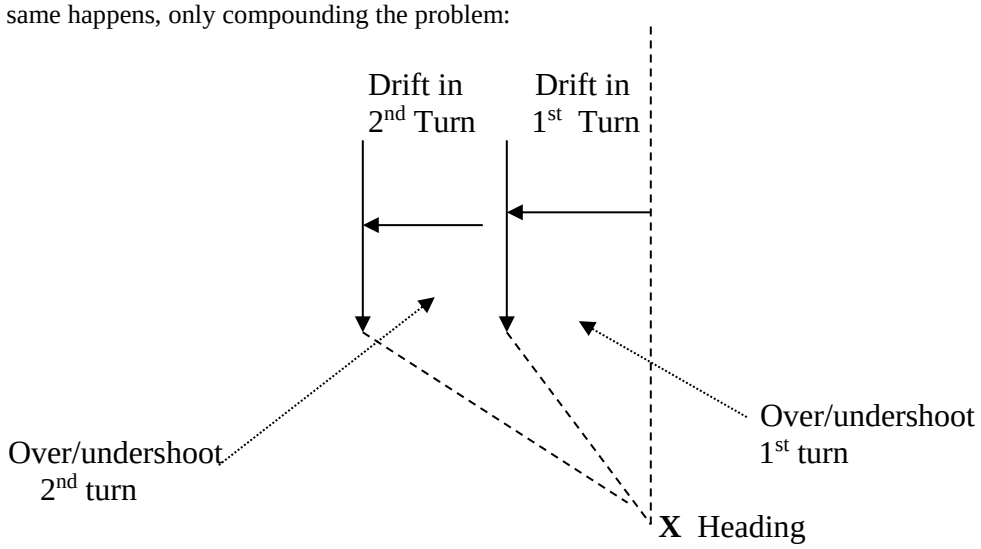
Ignoring any effect before the beginning of the first turn, let the jumper do a 360 degree relative to the heading at the start of the turn.



The jumper had done a 360 degree turn.

However, the Judge says, "No, you have overshot/undershot" (depending on the direction of the turn: clockwise = overshoot; anticlockwise = undershoot) relative to me.

On the second turn, the same happens, only compounding the problem:



The jumper is doing 360 degree turns, but the crosswind drift causes them to appear with over or undershoots; hence giving rise to a penalty.

In order to avoid a penalty, the jumper would have to deliberately make an overshoot, or an undershoot. This is, of course, completely unfair. Hence, the crosswind **MUST** be **ELIMINATED**.

Cross drift may still occur during freefall and if it does, should be noted by the Observer and may be grounds for a rejump (discussed later) if not self-induced.

Wind drift Jumpers.
While a good meteorology service will give strength and direction of winds from the ground up to jump altitude, the actual effect on the jumpers can only be ascertained by watching indicator jumps.

A load of non-competitors will jump as if in the competition, subject to the same control from the ground. The Judges will observe each one; watching for drift, assessing the tail wind, etc. The jump run direction can be changed until the correct one is found. It may even be necessary to send up two loads in order to be absolutely sure. The first competitor is entitled to the same consideration as the last competitor.

It is important to ensure that the "wind drift" jumpers have some knowledge of the style event, so that their performance will closely match that of the competitors. A fair comparison is essential.

4.3. Formation Skydiving

The Formation Skydiving event requires a team, composed of either four or eight members, plus their videographer, to complete a predetermined sequence of formations and intermediate maneuvers within a specified working time.

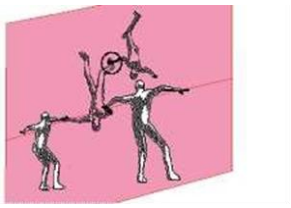
Definitions:

FORMATION: consists of competitors linked by grips and, for VFS, with each competitor in the correct orientation.

GRIP: consists of a handhold on an arm, leg or foot of another competitor. As a minimum, a grip requires stationary contact. For VFS, a foot grip consists of a handhold on a foot or ankle

GRIP LINE: This is the line linking the torsos of two competitors via their arms or legs and feet and the grip that joins them.

For VFS, Clarification regarding random M) and O) – There is an imaginary vertical plane passing through the handgrips, with outside competitors having hand grips on one side of the vertical plane and the competitor taking the leg grip on the other side of the vertical plane. No grip line may cross the vertical plane within the formation



BODY: consists of the entire competitor and their equipment.

DIVE POOL: consists of the Random Formations and Block Sequences depicted in the appendix to these rules.

SUBGROUP: is the individual jumper, or competitors linked by grips, required to complete a designated manoeuvre during the inter of a block sequence.

A SUBGROUP'S CENTREPOINT: is one of the following:
(1) The defined grip or the geometric centre of the defined grips within a subgroup of "linked" competitors
(2) The geometric centre of an individual's torso.

TOTAL SEPARATION: is when all competitors show at one point in time that they have released all their grips and no part of their arms have any contact with another body.

INTER: is an intermediate requirement within a block sequence which must be performed as depicted in the dive pools.

SEQUENCE: is a series of random formations and block sequences which are designated to be performed on a jump.

SCORING FORMATION: is a formation which is correctly completed and clearly presented either as a random formation or within a block sequence as depicted in the dive pool, and which for FS/VFS, apart from the first formation after exit, must be preceded by a correctly completed and clearly presented total separation or inter, as appropriate.

INFRINGEMENT: is one of the following:
(1) An incorrect or incomplete formation which is followed within working time by either a total separation or an inter, whether correct or not.
(2) A correctly completed formation preceded by an incorrect inter or incorrect total separation.
(3) A formation, inter, or total separation not clearly presented.

OMISSION: is one of the following:
(1) A formation or inter missing from the drawn sequence.
(2) No clear intent to build the correct formation or inter is seen and another formation or inter is presented and there is an advantage to the team resulting from the substitution.

WORKING TIME: For FS/VFS working time is the period of time during which teams are scored on a jump which starts the first moment any competitor (other than the Videographer) separates from the aircraft, as determined by the Judges, and terminates a number of seconds later designated in the rules.

NV: formations, inters or total separations not visible on screen due to meteorological conditions, or factors relating to the videographer's freefall video equipment that cannot be controlled.

JUDGEMENT CALL: An assessment by the judges of a formation, infringement or omission that is not unanimous.

Orientation: (For VFS)

- "Head Down" orientation requires that the competitor's torso is approximately vertical with the head down, towards the ground.
- "Head Up" orientation requires that the competitor's torso is approximately vertical with the head up, towards the sky.
- "Bellyflying" or "Belly to Earth" orientation requires that the competitor's torso is in a horizontal (prone) position, with the front of the torso toward the earth. (Bellyflying is not currently used in VFS formations)
- "Backflying" orientation requires that the competitor's torso is in a horizontal (prone) position, with the back of the torso toward the earth. (Backflying is not currently used in VFS formations.)

Exits, Working Times and exit altitudes:

4-way:	Thirty-five (35) seconds.	Exit altitude: 3,050 m (10,000ft).
VFS:	Thirty-five (35) seconds.	Exit altitude: 3,960 m (13,000ft).
8-way:	Fifty (50) seconds.	Exit altitude: 3.960 m (13.000 ft.).
10-way:	Thirty-five (35) seconds.	Exit altitude: 3,350 m (11,000 ft.).

NOTE: The exit altitude may be lowered for meteorological reasons. This would then decrease the working time.

The working time commences the instant a team member other than the videographer separates from the aircraft. It should also be noted that the regulations provide for no restrictions on the type of exit that may be used, other than limitations imposed by the pilot for safety reasons.

In order to assist the teams, the aircraft owners may install handles or bars on the outside of the aircraft. If reliance is placed on these and they break, causing a problem, this may be grounds for a rejump. The question to be answered is consistency and fairness for all teams. Hence, the answers depend on the circumstances.

Sequences

The sequences consist of a set of scoring formations. The order of the formations are drawn at random from the pool of 'Blocks' and 'Randoms'. Each round will consist of five or six formations (four or five formations for Intermediates), whichever number is reached first,

i.e.: Block, Random, Block (five formations)
Random, Block, Block (five formations)
Random, Random, Random, Random, Random (five formations)
Random, Block, Random, Block (six formations)
Block, Block, Block (6 formations)

The transition between each formation is either by way of a specified **inter** shown in the Blocks or by way of a **total separation**, between all jumpers.

The inter must be performed as visually presented in the appropriate appendix. Where sub-groups are shown, they must remain intact as a sub-group from the break of the previous scoring formation in the sequence until the correct completion of the next scoring formation in the sequence. Where sub-group turns are indicated, the sub-group must continue turning in the direction of the arrow until it is possible for the next designated scoring formation.

The degree of turn as shown in the annex indicates the approximate degree of turn required to complete the inter maneuver as intended, where the degrees shown are approximately that amount of the sub-group's circumference to be presented to the other sub-group in the horizontal plane of the previous formation.

Contact is allowed between individuals or sub-groups during the inter. A sub-group must remain intact and may have only the designated grips during the inter maneuver. Assisting handholds on other bodies in a scoring formation are not permitted.

The formations need not be perfectly symmetrical. Each formation, sub-formation and inter requirement must be carried out in accordance with the illustrations in the appropriate appendix. Mirror images of all complete blocks and/or random formations are acceptable.

Where total separation is required, the team must show complete separation between all team members at a particular point in time. Separation is not just letting go of grips, but is defined as no physical contact between all jumpers. This is a very important point to note.

Indicates direction of turn by the subgroup	
Indicates turn by the subgroup in either direction	
Indicates turns by all subgroups	
Indicates clarification of intent VFS	
Indicates clarification of intent FS	
Visualization of Grip Positions ARM: LEG FOOT: Note: A Foot grip is on or below the ankle	

The symbols situated on the backpack of figures in the formations, illustrate that a jumper in a formation is required to take a specific position in the next formation. In some formations, only two figures are so designated; in others, all four so that there is no doubt as to what is intended.

One further point of interpretation is that 'gear turns' may be made. This means that the groups need not turn the indicated degrees before making contact with the other group, i.e. Two groups turning relative to each other may take a grip on one side, while waiting for the other side to swing around into place.

Grips:
A grip, as a minimum… is stationary contact. The hand does not have to close, and it may make contact for only for a fraction of a second. Be consistent throughout the entire competition with your own interpretation of a grip. Keep in mind that the grip must be "controlled", look out for "high" grips. A leg strap grip on exit is a good grip, unless the leg strap is pulled away from the body, or rides high up on the hip.

Certain formations have contact points where two arms and a leg come together, i.e., Bunyip, Chinese Tee, Danish Tee—creating common grip areas. You may also see a variation of this technique used in the Box, Offset and Zircon. These can be built with either

arm taking a grip on the leg and the other arm may then take a grip on the leg (from hip to toe) or the arm (from shoulder to fingertips), or in the case of the Box, there may be no center grips taken at all.

PENALTIES (Busts) *(It is critical that video is available to illustrate these penalties)*

Assisting handholds / grips, extra grips:
These terms are used for additional grips not depicted in the divepool, usually used to steady the team member, assist in turning a sub-group, etc. They are not permitted within subgroups or scoring formations, however contact is permitted between two separate subgroups, after they have shown separation.

Control:
Formations must be built in a "Controlled Manner". It is up to each individual judge to determine if "control" was an issue. Teams are rarely penalized for lack of "control" if the grip is taken correctly.

Centerpoint Busts:
Teams will short-cut turns by flying a sub-group over top of the other sub-group (Vertical Transition). If the centerpoint of one sub-group does not completely rotate around the other's centerpoint, the turn requirement is not met and a "Centerpoint Bust (Penalty)" must be given to the team. (i.e. Zircon-Zircon, Stardian-Stardian).) This will be made clear in the video of examples.

Double Bust Rule:
This rule applies in blocks. If the first formation of a block is not quite completed before the rest of the team commences with the inter portion of the block and, the grip closes immediately thereafter, this is assessed as one infringement (incomplete formation) rather than two infringements. (incomplete formation and incorrect inter).

Busts at end of working time:
If an incorrect or incomplete formation is built at the end of working time, it is not considered an infringement unless it is followed, before the freeze frame, by total separation or the team continues on to the inter in a block. If jumps are judged with a system that cannot electronically show freeze frame at exactly 35 seconds, the playback operator should, on the second play, try to stop the image exactly at the 35 second point. Judges should not let what happens after working time affect their scoring.

Off screen:
A subgroup's grips that go off-screen are considered an infringement. However, a grip might go off screen for an instant, and in no way could break apart or move during that short time, that a judge may deem it to be a correct inter. It is up to the EJ, at the start of the competition to express to the panel of judges, his or her interpretation.

Judgement Calls
Situations frequently occur where a scoring formation, separation, or inter occur so quickly that some judges will determine that it is correct, and others will penalize it. The score is posted in favor of the majority.

Formations.
The formations shown in the appendices are symmetrical with grips clearly delineated. In fact the formations need not be symmetrical and may in fact be bent or skewed so that they do not look at all like the appropriate picture, i.e., a caterpillar may look like a horseshoe, which is acceptable, provide the grips are properly taken. For this reason, the formations should be well studied and memorized, so they can be recognized instantly.

Recording the jumps
Each jump is filmed by the videographer and recorded. All video equipment must deliver a high definition 1080 type digital signal with a min. frame rate of 25 frames per second, through a memory card (minimum class 10). The recorded media is then used by the judges for the evaluation procedure.

A "No Video" (NV) situation can occur for a variety of reasons: the videographer forgets to turn to camera on, or accidently turns it off, the battery dies, the camera gets fully zoomed in, or meteorological conditions prevent the image from being clear, or seen at all. The team is penalized for all of the above conditions, except meteorological conditions, in which case, the team is offered a rejump.

Judging procedures:
The judges will work in a segregated area free from disturbance so they can concentrate on the evaluation process. Prior to watching the jump, the judges will go over the printed divesheet to go over the requirements of the jump (to make note of directions and degrees

of turns, possible mistakes that happen in particular formations, etc.). Differences in opinion are resolved by the EJ. The judges will watch each jump on individual monitors or a large screen.

The Judges will watch the jump one time to determine points in time. The judges will tap the appropriate keys/buttons if using an electronic scoring system (or lap button if using a stopwatch) The moment of freeze frame at the end of working time will be determined at the first viewing. If a judgement call occurs, a second viewing of the jump will be conducted at normal or reduced speed between 50-90% of normal speed. The Event Judge may offer a third viewing at normal or reduced speed.

It is important to remember, or jot down on a piece of paper, the reason for giving penalties (i.e. incomplete separation, video angle, wrong formation, etc.) as the EJ will ask the judges this information so it can be included in the comments section on the scoresheet.

If, after the viewings are completed, and within 15 seconds of the knowledge of the result, the CJ, EJ, or any judge on the panel may call an "absolute" (an absolutely incorrect assessment). If the review results in a minimum four to one judge decision by the judges on the part(s) of the performance in question, the score for the jump will be adjusted accordingly.

Evaluation Techniques and Scoring Procedures

The evaluation technique used by the Judge depends on whether the specific part of sequence is a block, or a transition from block to random or random to random.

In a block, the Judge is looking for completion in the exact manner described. Hence, the Judge must know exactly how the block sequence flows, and must be particularly aware of the separation into groups and the turns required and the relative angles therewith. (Contact, which does not include a grip, is allowed between different subgroups during the inter of a block sequence). In other words, the Judge, just as the jumpers do, must practice and practice the blocks, both mentally and by watching recorded media, so that he knows what a correctly completed block sequence looks like. The more jumps the Judge watches and the more teams he observes, the better his experience will be.

Where a random or a block is followed or preceded by a random or block, the inter is the same at all times – total simultaneous separation (no physical contact) between all jumpers. It must be remembered that there is no requirement to build a formation in any particular manner. It can be built in any way whatsoever. Hence, the Judge must be able to recognize two things:

a) formation (alone, or in the block)
b) separation

Hence, the technique would be Formation-Separation-Formation etc.

It also must be remembered that what the team does between exit and the first formation is irrelevant. Hence the Judge need not worry until the first formation is built. The Judge should, however, be aware of the possibility that a team will take the first formation off the aircraft, waiting long enough for the Judges to see it before going into the first inter.

If the team performs the sequence correctly and without problem, the scoring is easy, and completing the score sheet presents no problem.

If the team makes a mistake (missed grip, no separation, etc.), the mark "0" will be in the appropriate box, where the mistake occurred and the evaluation continues.

Scoring: A team will score one point for each judgeable scoring formation performed in the sequence within the allotted working time of each round. Teams may continue scoring by continually repeating the sequence.

Credit will only be given for formations, inters or total separations if the recorded image is judgeable.

A performance, formation, inter or total separation will be deemed to be completed correctly if it is scored as such by at least half of the judges who evaluate the jump.

A team will score one point for each clearly presented correct formation performed in the sequence within working time for each round with the following exceptions:

- if an infringement in the scoring formation of a block sequence is carried into the inter, this will be considered as one infringement only, and only one point will be deducted, provided that the intent of the inter requirements for the next formation is demonstrated and no other infringement occurs in the inter.
- Three points will be deducted for each omission. If both the inter and the second formation in a block sequence are omitted, this will be considered as only one omission.

The minimum score for any round is zero points.

A maneuver or performance is considered to be executed within working time if it is evaluated as such by at least half of the judges who evaluate the jump.

Using Stopwatch and manual scoresheets
If the team performs the sequence correctly and without problem, a checkmark is placed in each box. which corresponds with the formation number. If the team makes a mistake (missed grip, no separation, etc.), the mark "0" will be in the appropriate box, where the mistake occurred and the evaluation continues. A double diagonal line is placed after the last point in time.

When completed, the score sheets are collected and stapled together. The scorers will check to ascertain that the exit and round numbers are the same, and will enter the team name on the top (collation sheet) from the manifest list.

In order for a formation or interim to be scored correct, it is sufficient for at least half the Official Panel of Judges to score it correct, i.e.:

Number of Judges Evaluating	Number Needed for OK
5	3
4	2
3	2

Where only 4 Judges observe the jump, if 2 score correct and 2 score incorrect, then 2 is not a majority. A majority is needed to score it "incorrect". Hence, the benefit of judging disagreement goes to the competitors.

Remember that the grips must be seen to be given credit. Do not give a team the "benefit of the doubt" (i.e. cameraman flying too low and a grip is hidden behind a leg or body or, grip not seen due to sun in VFS).

Electronic Scoring:
If the CSPA electronic scoring system (In Time) is used, the judges may be asked to bring a laptop (PC not Apple) computer. *(The In-Time system is discussed later in this manual)*

Manual Scoring:
If doing manual scoring, the judge requires a stopwatch, accurate to 1/100 of a second with at least 100 lap and memory recall.

The judge uses his watch to take a time for the exact instant of the completion of each formation. This time will be noted on the score sheet as an aid to the Event Judge and to provide information to the team concerned should they wish to look at their score sheets.

The judge will make notes as he watches the jump and will then complete his score sheet. It is extremely important that the judge complete all the necessary information required and check for accuracy before handing in the score sheet to the Event Judge, as it cannot subsequently be changed.

Score Sheets (Manual Scoring):
Ask your Instructor for copies of score sheets. It has on it the normal information – round, exit number, location, etc. and space for up to 40 formations to be evaluated. The standard signs to be used are as follows:

Formation/Inter– ok	√
Infringement: Formation/Inter – not ok	0
Omission	X
Formations, inters or total separation not visible on screen due to meteorological conditions or factors relating to the	

camera flyer's equipment that cannot be controlled	NV
No clear start or end to working time	NT
End of working time	//

The // sign is placed immediately after the last formation completed within working time.

In addition to the standard signs, the Judge should include:

a) reasons for any "0" evaluation
b) time taken with the stopwatch at the end of working time
c) any other significant remarks

These are important as they tell the competitors why they received the score given.

Collation of Scores:
When completed, the score sheets are collected and stapled together. The scorers will check to ascertain that the exit and round numbers are the same, and will enter the team name on the top (collation sheet) from the manifest list. Scores are copied onto the master scoresheet.

To determine where the time lines go, the place is the most formations given by at least half the observing Judges, ie:

	1	2	3	4	5	6	7	8	9	10	11	12	13	
Judge 1							//							
Judge 2									//					
Judge 3							//							
Judge 4						//								
Judge 5							//							

Hence, the given time line would be placed after the 7th formation

Note: This form is used to summarize the Judge's evaluation of the jump

Points Awarded
The rule concerning points earned is quite specific: A point is awarded for each formation completed correctly within the working time.

Competitor Responsibility
The rules place fairly and squarely upon the competitor the responsibility to execute the required performance in such a manner as to clearly present to the Judges that it has been achieved. Each formation and sub-formation must be clearly visible.

Examples of what might happen:
a) grip appears to be in wrong place
b) videographer is in such a position that formation is "flat" and Judges cannot see grips or separation

Competitors must be aware of the videographer's position relative to their own positions. They are performing for the Judges who are behind the camera.

Competitors must be reminded of this fact. They must be aware of how their particular exit will appear, how their jumpsuits look, etc. It is not sufficient just to let go a grip during a separation maneuver. It is the responsibility of the team to clearly demonstrate they have all separated at some point in time—whether by showing clear air or "flashing" as they separate.

Judges' Responsibility and Evaluation Thought Process
As we have seen in the previous section, it is the competitor's responsibility to clearly demonstrate the required performance. The Judge also has a responsibility to determine:
a) Is the jump judgeable?
b) Were you able to see all the grips during exit?
c) Is it a question of performance?
d) Did the videographer interfere with the team?

e) Did the team go off-screen during the inter?

Conditions that may make the jump non-judgeable are:
a) haze, so as to obscure the picture seen
b) clouds between camera and team
c) camera turns off

Where these conditions are not the fault of or cause by the team, then a rejump may be given. Haze, obviously, is nobody's fault and would likely cause a cessation of jumping. The effect of clouds is obvious. If the exit is such that the view of the formations at the beginning of the jump will make it so that the Judge sees the formation side on.

When the formation is side-on, the grips cannot be seen properly and are not judgeable, and would result in a "0" for each not clearly presented formation or inter. Keep in mind if the formation is not clearly presented the chance of the following inter being not clearly presented is also possible.

The Judge must also determine whether the team has clearly presented the required performance. It is very important for the Judge to accept the fact that he is not required to guess at what the team has done. If they do not show it clearly, they are in contravention of the rules and will be scored accordingly.

This is one case where the benefit of the doubt does not go to the jumpers' advantage. If there is doubt as to the performance, this is not a clear demonstration and is scored accordingly. The Judge must ask himself:

a) Am I **sure** the performance is not clear? Or
b) Am I **not sure** the performance is not clear?

If the answer is "yes" to (a), the performance is marked "0". If the answer is "yes" to (b), this means the Judge is not able to make up his mind about what he has seen and the performance would be given as clean. In (b) the doubt exists in the Judge's mind; in (a) the doubt exists in the jumpers' performance.

Situation (b) is likely to happen only seldom, since the jump is seen more than once. The replay will enable the Judge to clear up any doubts in his mind as to what he has seen.

In any event, it cannot be overemphasized that it is the teams' responsibility to clearly demonstrate the required performance.

Vertical Formation Skydiving

Vertical Formation Skydiving (VFS) is similar to FS except that the competitors fall in a head-down or head-up orientation. Each round is drawn from a pool of randoms and block sequences and can repeated until working time runs out.

Unlike FS, the videographer would likely record the team's performance from below. Challenges include a greater chance that the grips are hidden by arms, legs and bodies and the possibility of the grips being obscured by sun.

10-Way Speed Event

The objective of the 10-way speed event is to build a formation in the fastest time possible.

Altitude:
Each jump is made from 11,000 feet.

Working time:
- starts when the first competitor crosses the starting line and stops when the formation is complete; if no clear exit is shown, the team will be assessed the maximum score of 40 seconds.
- Each formation must be completed within 35 seconds and held for a minimum of five seconds. Total working time is 40 seconds.
- The videographer is outside the a/c in the rear float position and must record an image of the line on the floor prior to the team exiting the aircraft.
- Time starts when first foot crosses the line as per the video, stops when the formation is complete

10-Way Exit Procedures:

(1) A starting line is marked on the floor of a side-door aircraft from the front edge of the door to the opposite fuselage wall aft of the rear edge of the door; and for tailgate aircraft, the line is drawn five feet forward of the tailgate edge and parallel to the edge of the tailgate.
(2) The team must line up behind the line, and no members of the team, except the videographer, may come in contact with any portion of the aircraft on the door side or tailgate side of the line prior to commencing exit.
(3) Base/Pin: After exit, two unlinked jumpers must initiate all formations after completely passing through the door with the remaining jumpers converging on those two jumpers.

Scoring:

Each team receives a score (in seconds) for the completed 10-Way formation that is held for a minimum of five seconds. This five seconds must fall within working time (i.e., the last grip must be completed within 35 seconds). If a team does not complete a 10-Way formation, it will receive the maximum score of 40 seconds.

The score for each jump is computed by averaging the judges' scores to one one-hundredth (.01) of a second.

It is the responsibility of the team to clearly present the correct scoring formation.

4.4. Canopy Formation

This discipline is similar to Formation Skydiving in that formations are built, but under open canopies, linked together by grips. These formations may be formed either sequentially or by rotation.

There are three competition events:

- 2-way sequential
- 4-way sequential
- 4-way rotation

Definitions:

FORMATION: consists of 2 or more jumpers and canopies linked by grips, correct or not.

GRIPS**:** consists of a handhold or foot hook on an 'A' line or front riser so that a formation is built in accordance with the configurations as depicted in the dive pool

CONFIGURATIONS:

- STACK: the shoulder of the upper jumper must be above the upper surface of the lower canopy. A grip must be on an "A" line attached to the center cell.

- STAIRSTEP: the shoulders of the upper jumper must be above the upper surface of the lower canopy. The grip must only be on the outside 'A' line of the end cell. The grip must be taken with the inside foot; this may include an additional handhold, if desired.

- PLANE: the head of the upper jumper must be below the lower surface of the lower canopy. A grip must be on a front riser or an "A" line attached to the center cell.

- PLANE/STACK: is a plane, stack or any position on a riser or an "A" line attached to the centre cell between these configurations. A correct grip must be maintained.

INTER: the stage between two formations. An inter must be flown and remain intact with the correct grips.

SEQUENCE: A series of blocks and random formations that are designated by the draw.

NV: Formations, Inters or total separations not visible on screen due to meteorological conditions (such as rain, clouds, sun, etc.) or factors relating to the Videographer's video equipment that cannot be controlled.

OMISSION: is one of the following:

(1) A formation or inter missing from the drawn sequence, or
(2) No clear intent to build the correct formation or inter is seen and another formation or inter is presented and there is an advantage to the team resulting from the substitution.

WORKING TIME: working time begins at the moment of the first separation of a grip from the first formation whether correct or not, or 30 seconds after exit of the first team member, including the team's videographer, whichever is first.

SCORING FORMATION: is a formation which is correctly completed and clearly presented either as a random formation or within a block sequence as depicted in the dive pool, and which, apart from the first formation after exit, must be preceded by a correctly completed and clearly presented total separation or inter, as appropriate.

General Considerations:

Safety
Each team member must carry a hook knife and serviceable altimeter.

Grips
When considering grips, it must be remembered that all the jumper has to do is take a grip on the lines or risers with a hand or foot, as the case may be. The problem for the Judge is to determine just when and if the legal grip is taken. This may be a problem if the relative angle of observation is bad. *(Demonstration of various correct and incorrect grips)*

Exits
There is no limitation on the exit, and teams are responsible for their own exit point to get a working time. The exit must be clearly shown on the team's video recording.

Practicing other rounds
You may be called upon to monitor teams' jumps to ensure that the team does not practice other rounds after working time has elapsed. The team may not perform any other canopy formation. If they do, they may receive a zero for that round.

Judging Procedures:
The CF events can be judged using either electronic scoring or manual scoring. Five judges will watch the jump once at normal speed and may request one additional play at normal or at a reduced speed of 70%. A third replay at normal or reduced speed may be conducted at the discretion of the EJ. If electronic timing is not used, each judge will require a stopwatch that can record laps.

A panel judge or the EJ may call an "absolute" within 15 seconds of knowledge of the collated score if they consider than an absolutely incorrect assessment has occurred. The EJ will direct that portion to be replayed and the score will be adjusted accordingly if a minimum four to one judge agree.

A majority of judges must agree to a) credit the scoring formation, b) assign an omission or c) determine an NV situation

Malfunctions
Only one rejump may be given if a team experiences a deployment malfunction or other equipment problem. No rejump will be given if a formation has been built.

Judging Problems
The major problem with CF is being able to see if correct grips are properly made. It may be difficult, if not impossible, to see the grips required if the formation is too far away, or at an awkward camera angle.

Score Sheets
Score sheets are similar to those used in Formation Skydiving – ask Instructor for copies.

Signs on the score sheets:

Formation and Inter preceding it - ok	✓
Formation and Inter preceding it - not ok	0
NV Situation	NV
Omission	X

End of working time //
The // sign is placed immediately after the last formation completed within working time.

The Judge will also include on each score sheet:

- reasons for any '0' or "X" evaluation
- times of the first separation of grips and time of the last formation completed within working time
- any other significant information or remarks

2-way Sequential
This event is the same as the Formation Skydiving event, except that the formations are completed under open canopies. Each formation must be performed in accordance with the illustration in the drawn sequence. All formations are random and no block formations exist. Jumper position for each random is set by the draw, ie: the dark canopy position on the first formation built must remain in the dark canopy position on all subsequent formations for that jump. There must be complete separation between each formation. No mirror formations are allowed. All formations shall be performed as shown in the dive pool, as seen from behind.

Exit altitude event shall be 2150 m. (7000 ft.) with a working time of 60 seconds.

Each round consists of 5 formations that have been drawn from the dive pool of 12 formations (2 of each). After each sequence is drawn, the 5 formations are returned to the dive pool so that they may be drawn again.

Each judge will record the time of the separation from the first formation. This information is required to determine the end of working time. A point will be awarded for the first correct formation and each subsequent correct formation, preceded by total separation until working time has expired. Incorrect formations will not score points and there is no penalty. For each omission of a formation in a round, the team will not score the point for the omitted formation, and an additional two points **per omission** will be deducted from that round as a penalty. However, the scoring will not be affected if the team goes back to correctly complete the omitted formation. This does not usually happen as it takes too much time.

4-way Sequential
This event is the same as the 2-way sequential event, except that the formations require four canopies and inters can be either total separation or a sub-group formation similar to Formation Skydiving. Mirror images are allowed, and formations need not be symmetrical. Total separation is demonstration by the release of all grips at one point in time.

Exit altitude shall be 2750 m. (9000 ft.) and working time will be 120 seconds (2 minutes).

The sequence for each round will consist of four or five formations drawn from the pool of random and block formations. Scoring points and infringements is similar to 2-way sequential. For each omission of a formation in a round, the team will not score the point for that omitted formation, and an additional one point per omission will be deducted from that round as a penalty. However, the scoring will not be affected if the team goes back to correctly complete the omitted formation. (Note: if three canopies attempt the formation, or the two 2-way formations in an inter clearly attempt to build the formation required by the drawn sequence, it is considered and infringement and not an omission)

4-way Rotation
The team is required to form a vertical formation (four canopy stack/plane). The top person drops grips and re-docks on the bottom with legal grips and makes another formation. The top person should not drop grips until the bottom person is connected.

Exit altitude shall be 2500 m. (8000 ft.) with a working time of 90 seconds.

One point is scored for the first four way formation. Additional points will be scored for each successive formation built by top to bottom rotation. Points may only be scored within the working time.

If a formation is incorrectly built, no point is given. A point will then be scored only when the top person in the rebuild makes a complete rotation to build a correct formation.

The Judges will start their watches when the first team member leaves the aircraft and lap their watch at the first separation of grips—correct or not. The watch must be lapped at each formation after the initial formation. These times will enable the judge to determine how many formations were completed within working time. In order to score a point, the top team member must depart from and dock on a plane/stack formation consisting of three canopies in accordance with the performance requirements.

4.5. Artistic Events

The Artistic Events comprises of two events: Freestyle Skydiving and Freeflying. These events are judged more interpretively than all others, somewhat like Figure Skating. They are not as cut and dried as FS or CF where there are certain maneuvers with specific restrictions imposed. Although there is a criterion that must be met, scores will be determined from innovativeness and skill of choreography on the part of the competitors.

Freestyle Skydiving consists of one performer and videographer, both of whom form the Team. A Freefly Team has two performers and a videographer. The videographer is part of the team and his work will be considered during the scoring. At the Canadian Nationals we have only Freeflying as we do not have a large number of competitors.

There is an "Open" Freefly Event, and an "Intermediate" Freefly event.

(The Course Conductor will provide a copy of PIM4B Competition Rules and Appendices dealing with Sequences, Body Positions and Levels of Difficulty)

Appendix A describes the compulsory sequences,
Appendix B describes basic body positions, orientations and rotations
Appendix C describes levels of difficulty

Definitions (Freeflying):

HEADING: the direction in which the front of the torso of the Performer faces.

MOVE: a change in body position, and/or a rotation around one or more of the three body axes, or a static pose. See PIM 4B

GRIP: a recognizable stationary contact of the hand(s) of one Performer on a specified part of the body of the other Performer, performed in a controlled manner

DOCK: a recognizable stationary contact of the foot(feet) of one Performer on a specified part of the body of the other Performer, performed in a controlled manner.

ROUTINE: a sequence of moves performed during the working time.

- Compulsory Routine: a routine composed of compulsory sequences and moves chosen by the team.
- Free Routine: a routine in which the moves are chosen entirely by the Team.

WORKING TIME: the period of time during which Teams may perform a routine during a jump. Working time starts the instant any Team member separates from the aircraft, as determined by the judges, and terminates 45 seconds later.

Exit altitude for Freefly: 13,000 (3960 m.) AGL. There are no limitations on the type of exit.

A Freefly competition consists of Compulsory and Free Rounds. Rounds 1, 3 and 4 are the Free Rounds; Rounds 2 and 6 are the Compulsory Rounds. (F – C – F – F – C – F)

Compulsory Routines: These consist of four (4) predetermined sequences for each round in the Open Category and (3) predetermined sequences for each round in the Intermediate Category *(see Appendix in the Competition Rules).* They can be performed in any order, and the team may add additional maneuvers.

Free Routines: The content of the Free Routine is chosen entirely by the team.

Prior to the start of the competition
The team will provide the judges a video of the Free Routine so they can assess the difficulty level of the routine and provide a "Difficulty" score. A video or description of the Compulsory Sequences, along with its Difficulty Values will also be submitted. The judges will watch the submitted videos of the free rounds before the start of judging, to determine the difficulty level of the routine and provide a score (0-10 points) for the "difficulty" component of the final score.

Judging
The judges will watch each jump once and then judge each jump on the second viewing. The EJ might ask the judges to watch a third time (at normal or reduced speed – 70%) to produce a score. The skill and presentation of both the performers and the videographer is considered when assessing a score.

Scoring Free Routines during the competition
A score of 0.0 to 10.0 is given for each of the following two criteria: Execution and Presentation.
(So, two scores are given on the final scoresheets)

The difficulty score consists of the predetermined degree of difficulty of the moves and the presented execution, which includes transitions, teamwork, precision, control and proximity (see PIM 4B). The execution criteria includes precision and control and the presentation criteria include creativity (routine composition, choreography, flow, definite beginning and ending and general appeal (this includes the camerawork).

Scoring Compulsory Routines during the competition
A score of 0.0 to 10.0 is given for a) Presentation and b) each of the four compulsory sequences.
(So, five scores are given in the Open event) The Presentation score reflects the entire jump from beginning to end of the routine, including the moves between the compulsory moves. The Compulsory move is assessed as soon as it is recognized. *(instructor to go over compulsory routine guidelines)*

Score Calculation
The score for each round is calculated as follows:

- Compulsory Rounds: the highest and lowest Judges' scores of each Compulsory Sequence and Presentation will be discarded, and then the remaining three (3) scores will be averaged with no rounding applied. The average scores will be added, and the result will be divided by five (5), then rounded to the first decimal place.

- Free Rounds: the highest and lowest Judges' scores of the Execution and Presentation criteria will be discarded, the remaining three (3) scores of both Execution and Presentation will be averaged separately with no rounding applied. To determine the Technical score, the scores for Difficulty and Execution will be added, and the result will be divided by two, with no rounding applied. The Technical and Presentation scores will be added, and the result will be divided by two, then rounded to the first decimal place.

4.6. Canopy Piloting

Canopy Piloting is an individual sport and involves a series of tasks designed to test a parachutist's ability to control his canopy and fly accurately. Each test starts with the parachutist navigating through a number of gates, which are situated over water. The Competitor has one of three goals, depending on the task:

- Speed: to complete the course in the shortest time;
- Accuracy: to complete the water section and then land on a target as accurately as possible;
- Distance: to achieve the longest distance from the entry gate before touching down.

The Minimum Exit altitude for 1 or 2 competitors is 1200 m (4000 ft) and for 3 or 4 competitors it is 1500 m. (4800 ft). Allowable wind speeds are 5m/s for Speed and Distance, and 3 m/s for Accuracy (if a competitor lands within 30 seconds of the winds going over this limit, he will be offered a rejump.)

Definitions used in Canopy Piloting: *(review in class)*

AIW—Additional individual weight that a competitor can carry as determined by a chart (see PIM4B).

BODY—The physical structure of a person, including clothing and footwear.

CANOPY DOWN (CD)—A situation in the Speed Event when a competitor's canopy makes surface contact prior to the competitor stopping the timing by breaking the sensor beam at G5 with his body. A pilot chute is not considered part of the canopy.

CLOSED COURSE—If for any reason the Chief Judge (CJ), Event Judge (EJ) or the Meet Director decides to close the course, an orange smoke canister and/or other suitable indicators will be placed at the beginning of the course or in another appropriate location. The indicator type and location will be described during the pre- event competitors' briefing.

CONTROL PROBLEM—A condition of the parachute that makes it impossible to attempt a safe approach to the course.

COURSE—The designated path that competitors must navigate that is formed by gates and marked by sidelines in accordance with the details in PIM 4B. Sidelines are part of the course.

COURSE MARKER—Devices that mark and indicate the boundaries of the course. These are inflatable buoys which are a minimum of .20m in diameter and 1.5m in height (+/- 5 cm). They are fixed in position in such a way that the center axis of the marker may only move a max. of 10 cm from their approved position.

COURSE TECHNICAL DIRECTOR (CTD)—A person appointed by the Organizer and accepted by the CNTC for that position. The CTD is responsible for the planning, setup and maintenance of the courses before and during the competition.

DEFAULT RESULT (DR)—A DR in all events is three points.

DOWN-LANDING (DN)—A landing where surface contact is made during the landing by any part of the body, other than the feet.

DWIPE—Normal dressed weight including clothing, footwear, parachute equipment and all other equipment worn on the jump but excluding AIW.

ENTRY GATE (G1) —See gate. The first gate on the course. In Freestyle, the water surface is the entrance to the course.

EXIT GATE (G5)—See gate. The last gate on the course.

GATE—Consists of two course markers or electronic sensors separated laterally by a variable distance.

KITING/KITED—The competitor keeps the canopy (excluding the pilot chute) flying without any surface contact by the canopy.

LANDING—A landing starts when any part of the competitor's body makes surface contact, excluding contact due to water drag, and ends with a complete stop.

LANDING ZONE—In the Zone Accuracy event, landing zones, denoted as Z1-Z9 and CZ, are defined areas within the boundaries of the course with assigned point values.

MARKER STRIKE (MS)—In all events, when any part of the competitor's body or equipment comes into contact with a course marker, sensor, transmitter or any other fixed judging device and causes it to become non-functional or to need repair of any kind, as determined by the CJ or EJ.

MINIMUM RESULTS (MR)—The MR in all events is zero points.

MISSED ENTRY (ME)—Not scoring G1 for any reason, or in the Freestyle event, not touching water.

MISSED EXIT (MX) —Not scoring the Exit Gate for any reason.

NO WATER DRAG (NW)—Not clearly showing surface contact with the water with any part of the body.

OFF-COURSE LANDING (OC)—A situation when part of a competitor's body makes surface contact outside the course while not simultaneously maintaining surface contact within the course.

OPP—Official practice period

OUT-FLYING (OF)—A situation when no part of a competitor's body remains within the course and no surface contact occurs.

PARACHUTE EQUIPMENT—For the purpose of the weight calculations, the parachute equipment is the parachute system (rig) and helmet.

RED CARD (RC)—A penalty issued by authorized persons during the competition for actions that are or flying that is deemed unsafe or for unsporting behaviour as described in these rules and in FAI/IPC Sporting Code: General Section.

RESULT—The point value of a score, after applying the calculation procedure or the points resulting from a DR or MR.

SAFETY ZONE—The areas outside the course.

SCORE—An evaluation by the judges of a competitor's achievement while navigating the course; e.g. time in seconds in Speed, distance in meters in Distance, points in Zone Accuracy, and points in Freestyle. The minimum score is zero (0).

SCORING A GATE—A gate is scored when any part of the competitor's body breaks the imaginary plane between the course markers that make up the gate, or breaks the electronic sensor beam.

SCORING A WATER GATE—To clearly show uninterrupted surface contact by performing a water drag with any part of the body, when passing through the imaginary line running between the leading (front) edge of the course marker of a water gate.

STAND-UP LANDING (UP)— A landing where no part of the body other than the feet makes surface contact.

SURFACE CONTACT—The point at which any part of the competitor's body comes in contact with any part of the earth's surface including natural and/or man-made structures and materials.

VERTICAL EXTENSION (VE)—When a competitor passes between, but above the course markers that make up a gate, failing to score a gate. VE applies to gates as specified in the rules.

VR—video review.

VRP—video review panel.

WATER GATE (G1-G4)— The gates located on the water portion of the course.

WATER DRAG—Surface contact made by dragging any part of the body on or through the water portion of the course.

WATER LANDING (WL)—A landing in the water portion of the course.

YELLOW CARD (YC)—A penalty, often recognized as a warning, issued by authorized persons during the competition for actions or flying that is deemed unsafe or for unsporting behaviour as described in these rules and in the Sporting Code: General Section. A YC may, but is not required to, be issued before a red card. Two yellow cards issued during a single competition are equivalent to and will have the same result as the issuance of a red card.

The Events:
(*Note: See PIM4B for Diagrams of the CP courses).*

Carved Speed
The competitor navigates through a curved 70 m course in the fastest time possible. The Competitor must pass between the course markers of the Entry Gate (G1) to activate the timer (which is an electronic beam across the course) Any part of the body, even a toe, is sufficient. The competitor's time is stopped as he breaks a second beam across the exit gate (G5). The time is measured to a thousandth of a second.

The competitor must remain within the boundaries of the course and a part of his body must remain below the top of the gates (G2, 3, 4). He may make contact with the ground as long as the canopy remains flying (Kited) and there is no "Canopy Down (CD)". (Note: a competitor may land, and run through the exit gate as long as his canopy does not touch the ground.) This may be the case if there is a strong headwind, or if the competitor is less experienced.

The competitor will receive a "Default Result (DR)" of 3 points if he makes the entry gate (G1) but:

a) flies outside the course "Out Flying, (OF)", or
b) flies above G2-5 "Vertical Extension, (VE)", or
c) hits one of gates, G2-5 and renders it non-functional and in need of repair "Marker Strike, (MS)", or
d) lands outside the course before he reaches the exit gate (G5) "Off Course Landing, (OC)", or
e) has his canopy touch the ground before his body breaks the beam of the exit gate. "Canopy down (CD)

Note: The competitor may touch the water before, during or after the entry gate. He only penalizes himself in time by doing so in that it will slow down his forward speed.

In the Intermediate class, the sensor beam is at 3 meters, and Vertical Extension (VE) applies only to G1 and G5.

Judging the Speed Event:

In the Speed Event, Judges are positioned at each of the five gates. Also, a judge (or, a volunteer appointed by the Chief Judge) is positioned adjacent to the Entry Gate (G1) with a stationary video camera, where he will record competitor's flight through the gate. In addition, a second judge (or volunteer) is positioned at the focal point of the course arc and level with the tops of the gates, with a video camera, to pan with the competitor as he navigates the entire course. The Video recordings will be for "Video Review" purposes.

A "recorder", with a master scoresheet on a clipboard, is positioned in a location where he can easily see all of the judges. The recorder will write down all of the information regarding the jump, as displayed by each of the judges. The judges, who are stationed at each of the gates, is given a placard which has the gate name written on it (i.e. **G2**). As the competitor navigates through the gate, The judge immediately (without any hesitation) signals the recorder by holding the placard in certain positions. (see below and attached diagrams)

Signals
(For the following: Refer to the Rules)

If a competitor:
a) correctly maneuvers through the gate, the judge holds the placard down by his side at approximately 20 degrees to the vertical
b) flies above the Entry gate (G1) this is a "Missed Entry" (ME) and both arms are held up.
c) flies above the other gates, (G2-G5), this is a Vertical Extension (VE), and the judge elevates the placard above his/her head at arm's length.
d) flies outside of the course boundries (OF) the judge will extend an arm to the side.
e) knocks down a course marker (buoy) to render it non-functional and must be repaired, called a Marker Strike (MS) the judge will wave the placard overhead and point to the course marker
f) lands off course (OC), before scoring G5, the judge will hold the placard….
g) if the canopy touches down before the competitor's body passes the beam at G5, this is a "Canopy Down" (CD), and the judge will hold the placard …

Judges may also be placed in strategic positions so they can ensure the competitor remains within the boundaries of the course. The use of additional video cameras to ensure the exit gate has been correctly scored and the competitor has remained within the course is also a benefit.

Distance

In the Distance Event, the competitor navigates his parachute through the course for the longest distance possible before touching the surface.

The competitor must drag water at some point before or at G1, then remain within the boundaries of the course with at least part of the body, as defined by the course markers, to obtain a score. He must also be below G5 or a "Vertical Extension" (VE) penalty will apply.

The first point of contact with the surface, within the course, is marked as the distance. The competitor must come to a stop before exiting the course. (it has been argued that if the competitor stops his forward momentum, turns 90 degrees and walks off the course, that this is adequate….)

If during the landing, surface contact is made outside the course, and no part of the body is in contact with the ground within the course, he will receive an "Off Course" (OC) penalty. Flying outside the course (OF) before touching down is permitted.

The competitor will receive a "Default Result (DR)" of 3 points if he makes the entry gate (G1) but:

a) flies above G5 "Vertical Extension, (VE)", or
b) "Off Course Landing, (OC)"

In the Distance Event, the score received is in meters and centimeters (to the nearest hundredth.) If a competitor lands between G1 and G5 (either in the water or the land portion before G5), a score of 35 meters is given. If the competitor lands right at G5, he receives a score of 50 m. If the competitor lands after G5, the distance is measured from G5 and 50 m is added for the water portion of the course.

A measuring tape (which clearly displays meters and centimeters) is placed along the sideline on either side of the course. Judges are positioned outside the course to determine the first point of contact with the surface.

Judging the Distance Event

In the Distance Event, Judges are positioned as follows:

- at the entry gate (G1)
- along the water portion of the course
- at the exit gate (G5)
- along the course sidelines of the land portion of the course
- Also, a judge (or, a volunteer appointed by the Chief Judge) be positioned adjacent to G1 to record the Entry with the use of a stationary video camera which is mounted on a tripod level with the top of the gates. In addition, a second judge (or volunteer) may be positioned (at G5) with a video camera to record possible Vertical Extensions. (VE) The Video recordings will be for "Video Review" purposes.

A "recorder", with a master scoresheet on a clipboard, is positioned in a location where he can easily see all of the judges. The recorder will write down all of the information regarding the jump, as displayed by each of the judges.

The judge at G1 has two placards which read: (NW) and (G1). The judge will immediately hold up the (G1) card if the competitor misses the entry, and the (NW) if the entry is made but no water is dragged. The judge at G5 will hold up his placard if the competitor has a Vertical Extension (VE) .

If a competitor correctly maneuvers through the gates, the judges hold the placards down by their sides. The judges at the sidelines of the land portion will attempt to judge where the competitor will land and follow him so that upon landing, he is beside the competitor's landing point. The judge will visually pinpoint the first point of contact, track a straight line perpendicular to the sideline and place a finger or foot on the spot on the measuring tape, that marks the correct distance. The judge will then call out clearly to the recorder the number to the nearest hundredth. (i.e. "Sixty-Three point Two Five - 63.25). (The tape should not be lifted up off the ground as it is read.)

In the Intermediate Class, the competitor is not required to drag water and must pass between the modified 3 meter G1 and G5 gates to attain a performance score.

The Zone Accuracy Event

In the Zone Accuracy Event, the competitor navigates his parachute through the entry gate scoring as many of the water gates as possible before flying to a precision landing. The competitor's landing must start and come to a complete stop within the boundaries of the course in an accuracy pit, which is generally made up of pea gravel. (otherwise an "off course landing" penalty applies "OC"). The competitor earns water-gate points for each gate scored. The imaginary line is at the leading edge of the buoy.

The gates have the following points values:

Water-gate 1 = 21 points
Water-gate 2 = 5 points

Water-gate 3 = 8 points
Water-gate 4 = 16 points

In order to earn landing zone points, the competitor must score at least one water gate. The competitor is awarded the score of the zone with the lowest point value that was touched during landing.

The landing zones have the following points:

Landing-zone 1 = 3 points
Landing-zone 2 = 11 points
Landing-zone 3 = 19 points
Landing-zone 4 = 27 points
Landing-zone 5 = 34 points
Landing-zone 6 = 41 points
Centre-zone = 50 points
Landing-zone 7 = 46 points
Landing-zone 8 = 48 points
Landing-zone 9 = 25 points
Landing-zone 10 = 5 points

The competitor must do a stand-up landing, otherwise a penalty of -10 points is applied.

The competitor's score for a round is the sum of the water-gate points and landing zone points. A perfect score (scoring all of the water gates and doing a stand up landing in the center zone) = 100 points

Demarcation-lines mark the areas separating each zone. Centre Zone demarcation lines are of a contrasting color to the other zone demarcation lines. Zone 7 has indicators outside of the zone, to indicate its location (i.e. flags etc.).

Zone Lines

(1) The line between the water and & zone 1 is defined as part of zone 1.
(2) The line between zone 1 & 2 is defined as part of zone 2.
(3) The line between zone 2 & 3 is defined as part of zone 3.
(4) The line between zone 3 & 4 is defined as part of zone 4.
(5) The line between zone 4 & 5 is defined as part of zone 5.
(6) The line between zone 5 & 6 is defined as part of zone 6.
(7) The line between zone 6 & 7 is defined as part of zone 7.
(8) The line between zone 6 & 8 is defined as part of zone 8.
(9) The line between zone 7 & 8 is defined as part of zone 8
(10) The four CZ zone demarcation lines are defined as part of the CZ.
(11) The line between zone 7 & 9 is defined as part of zone 7.
(12) The line between zone 8 & 9 is defined as part of zone 8
(13) The line between zone 9 & 10 is defined as part of zone 9
(14) The line at the end of zone 10 is defined as part of zone 10.

The sidelines are defined as part of the zones.

The rules state that the side-lines are part of the zones, therefore if it is determined the competitor's first point of contact with the surface is on a side-line then he shall receive the score from that zone.

In the Intermediate class, the competitor must pass between the modified (infinity) G1 Gate and attempt to land in the Center Zone or Zones Z1 through 9, as well as earning at least one Water Gate to earn Landing Zone points

Judging Zone Accuracy:

Judges are strategically placed at each of the four water gates and are positioned so that they can see if the competitor has contact with the surface of the water as he passes through the gate (defined as "Dragging Water"). Normally, each Judge would have a placard indicating the Gate number. If the competitor scores the gate successfully (drags water) the Judge keeps the placard down by his side. If the competitor fails to score the gate the card would be held up so it is visible to the recorder. Care needs to be taken as a competitor

can set up a "wave" without actually being in contact with the surface, or the foot may be "skipping" at the time of passing the course marker.

In addition to the Judges at the water gates, several judges are placed outside the course in the area of the landing zones. Each judge is assigned one or two zones to look after. These Judges determine in which zone(s) the landing occurs and if the competitor is "up" or "down" (stands up or not). Even putting one hand on the ground is not a "stand-up" landing.. (remember: a "landing" starts with the first point of contact with the ground and finishes when the competitor comes to a complete stop.) The judge then raises a placard with the number of the zone the competitor has scored, as well as an indication of whether it was an "UP" or "DOWN", landing.

Recorder

There are two recorders for the zone accuracy event, one for the water gate portion of the course, and one for the landing zones. The recorders will acknowledge the judge at each gate and record the information that is displayed. The recorder will then give a wave to the judges to let them know that the information has been recorded correctly.

A judge (or another person approved by the Chief Judge) operates a video camera at the entry gate. He has a list of competitors (in the correct exit order), and reads the name of the upcoming competitor into the recording. Also, at least one video camera is placed (or held) at the landing zones to record the competitor's landing.

Wind Monitoring

The maximum wind speed for Canopy Piloting is 7 mps for the Speed and Distance Events and 5 mps for the Zone Accuracy event. The winds are measured by an anemometer, and in addition, there is a windsock capable of responding to winds of at least 2 m/s and a wind direction indicator (streamer), capable of responding to winds of less than 2 m/s. The winds are strictly monitored by a competent person, (usually a judge) who records the wind speed and direction for each landing. This is to ensure that the rules are adhered to, that each competitor plays in a level playing field and competitors remain safe.

Safety Considerations for Canopy Piloting

The Whistle

Someone is appointed by the CJ or EJ to advise those on the ground of approaching competitors. He is equipped with an audible warning device (usually a good quality whistle) and upon the competitor's exit from the plane he will give three short whistle blasts. When the competitor is on final approach he gives one long whistle blast. (This advises judges to be prepared, and other personnel in the area to clear away.)

Canopy Problems

Competitors will be told to land off the course if they have an equipment control problem. A judge will inspect the canopy to confirm that the problem was not caused by human error (i.e. a packing problem)

Course closure

In the event of an emergency, the Course will immediately be closed and competitors in the air will be advised to land away from the course. Someone on the course is responsible to wave a large flag, and/or release a smoke canister. The EJ/CJ will also have a ground to air radio to advise the pilots to hold jumpers in the aircraft. A procedure will be put in place, a drill will be held prior to the start of competition, and competitors and all ground staff will be advised of the the emergency procedures.

Safety Violations

The CJ or EJ may give a "Yellow Card" to someone who violates the rules of safety, (i.e. erratic canopy control, not immediately clearing the course). A "Red Card" is given for actions that pose immediate danger to themselves or those on the ground (extremely low hook turn, flying into a person or object on the ground, etc.) The issuance of a second yellow card equals a red card. (If a red card is given to a competitor, he will be disqualified from the competition and the results from previous jumps will be deleted).

Judges' safety first

The judge on the ground must, at all times, be extremely vigilant about where the canopies are, and what their flight path is. The judge's primary goal is to remain safe. These competitors are approaching at high rates of speed and will not be able to change their course to avoid you—so it's up to you to avoid getting yourself in a position of danger. Someone with an audible device (usually a whistle) will signal when a competitor is about to begin his final approach. Competitors will be advised that the judges will remain in a stationary position on the ground and that it is the judge's obligation to avoid them. If a collision is imminent, the judge should dive to the ground….. in the direction of the flight path…. and lay flat on the ground.

4.7. Wingsuit Flying

There are two events in Wingsuit Flying Competition. The Performance Event and the Acrobatic Event.

Definitions:

Performance Event:

COMPETITION WINDOW: A vertical 1000 meter window, starting at 3000 m (9843ft) Geometric Altitude and ending at 2000 m (6562ft) Geometric Altitude, in which the performance of the wingsuit flyer is evaluated. The first crossing of the upper window boundary starts the evaluation process, which is stopped at the first crossing of the lower window boundary.

POSITION LOGGING DEVICE (PLD): A device used to record the real-time, three-dimensional (3D) position of the wingsuit flyer, which is mounted on the wingsuit flyer's body or equipment.

SPHERICAL ERROR PROBABILITY (SEP): The horizontal and vertical accuracy specifications of a PLD expressed in terms of a sphere of given radius; for example, "real-time accuracy <10 meters SEP."

FLIGHT DIRECTOR: a person appointed by the Meet Director to act as in-flight liaison to coordinate jump runs and facilitate exits.

GEOMETRIC ALTITUDE: The height, as measured by a Global Navigation Satellite System, optical methods or radar, above ground level. The ground level for the competition site will be determined by the Meet Director and will be made known at the pre-event competitors' meeting.

DESIGNATED FLIGHT PATH: the assigned ground track using a designated reference on the ground given to the competitor by the Meet Director.

Acrobatic Event:

COMPULSORY ROUTINE: a routine composed of compulsory sequences chosen at random from Appendix B by the Chief Judge.

FREE ROUTINE: a routine composed of maneuvers chosen entirely by the Team

NO VIDEO (NV): Formations, Inters or total separations not visible on screen due to meteorological conditions or factors relating to the videographer's equipment that cannot be controlled.

GRIPS:

1) A grip: a recognizable stationary contact, performed in a controlled manner, of the hand(s) of one Performer on a specified part of the body of the other Performer.
2) A hand grip consists of a handhold on the hand /wrist. The grip must be on or below the wrist.
3) A leg grip consists of a handhold on the leg below the hip.
4) A grip on the surface of any wingsuit without also achieving stationary contact on a specified part of the body as defined in 1), 2), and 3) above is specifically excluded from the definition of a grip.

MANEUVER: a change in body position or a rotation around one or more of the three (3) body axes or a static pose

NORMAL FLIGHT: The performer is in a belly-to-earth stable position

OMISSION:

1) a *maneuver* or *grip* missing from the drawn sequence or
2) there is no clear intent to perform the chosen *maneuver* or
3) an attempt at a *grip* is seen and another *maneuver* or *grip* is presented and there is an advantage to the team resulting from the substitution.

ROUTINE: a sequence of maneuvers performed during the working time.

TEAM: an Acrobatic Wingsuit Flying Team is composed of two (2) Performers and a Videographer.

WORKING TIME: the period of time during which Teams may perform a routine during a jump. Working time starts the instant any Team Member separates from the aircraft and terminates after an interval established in these rules.

The Performance Event

Objective
The objective is to fly a single wingsuit in three separate tasks to demonstrate a combination of best lift (time task), best glide (distance task) and least drag (speed task). Each round of the event is comprised of the three tasks. Each task is performed on a separate flight.

Tasks

- Time Task: The wingsuit flyer is to fly with the slowest fall rate possible through the competition window. The result for this task will be the time taken to fly through the competition window, expressed in seconds, rounded to one decimal place.

- Distance Task: The wingsuit flyer is to fly as far as possible through the competition window. The result for this task will be the straight-line distance flown over the ground while in the competition window, expressed in meters, rounded to whole numbers.

- Speed Task: The wingsuit flyer is to fly as fast as possible horizontally over the ground through the competition window. The result for this task will be the straight-line distance flown over the ground while in the competition window divided by the time spent in the competition window, expressed in meters per second, rounded to one decimal place.

Program
A competition consists of three rounds, with three tasks in each round. (9 flights total). The exit altitude is 13,000 AGL.

Jump Run and Exit Order
The jump run should be perpendicular to the wind line upwind of the designated landing area. Competitors exit on a single pass of the aircraft with sufficient space between exits. (In a larger a/c, a Flight Director may be placed on board to assist the competitors with identification of ground reference points and landmarks.) Immediately after exit, each competitor turns directly towards his designated flight path.

Flight Pattern
The designated flight path of each competitor using a ground reference point, as determined by the Meet Director, is given to the competitor (a detailed map or aerial photograph is used).

Equipment
Competitors may not carry additional or removable weight on their body or equipment. They will be weighed at the start of the competition, and randomly throughout the competition. (fluctuations of +/- 2 kg. is permitted). (Propulsions systems are not permitted).

A competitor may not wear any other electronic device or wires closer than 2.54cm from the official PLD as measured by the judging staff. However, a second identical PLD unit may be worn without regard to this separation requirement. If any such electronic device affects the PLD system, and the source of the interference is not obvious and beyond the reasonable control of the jumper, a rejump may be granted by the Chief Judge.

Each competitor must wear a functioning audio altitude warning device on every jump.

The same wingsuit, without any changes or modifications of its parts, must be used for all tasks in a round. In exceptional circumstances, a wingsuit may be changed between rounds with the consent of the Chief Judge, e.g., if the original suit gets damaged and cannot be made airworthy by the next round. Wingsuits will be inspected and marked by a Judge. Only marked suits may be used for the event.

Violations

- A competitor must not cross another competitor's designated flight path,
- deviate more than 30 degrees from his designated flight path at any time.
- come within 250m of any other competitor(s).
- deploy above the designated opening altitude (generally 5000 ft.)
- Addition or removal of weight
- Failure wear a functioning audio altitude warning device.

- Using unmarked wingsuits

Violation of these rules, as determined by the panel of judges, will result in a score of zero for that jump. (If other competitors are endangered, the violation is referred to the Safety Panel.)

Position Logging Device (PLD) and Software

The PLD records real-time three-dimensional (3D) data with a resolution of at least 5Hz and a position accuracy (SEP) of less than 10 meters. Each competitor wears one PLD.

Hardware: "Flysight"

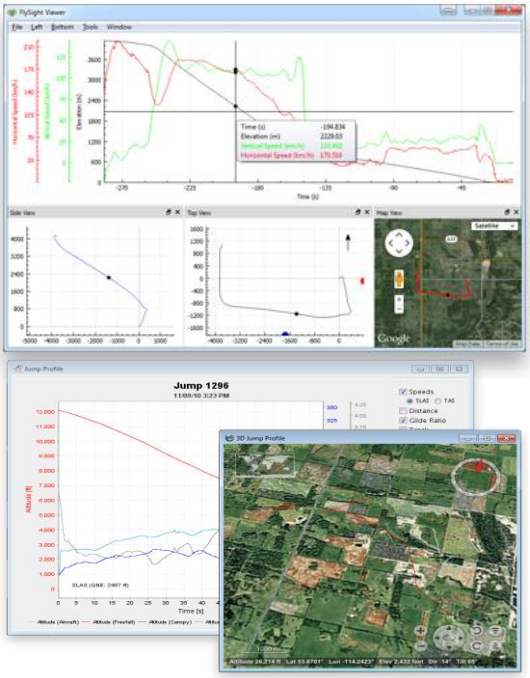
Developed in Canada, this is the PLD that is used in Canada at present. FlySight provides indication of glide ratio, horizontal or vertical speed.

Software: "Flysight Viewer" and "Paralog"

The FlySight Viewer is a utility for debriefing individual jumps. It produces plots of logged jumps, including the following parameters:

- Glide ratio/dive angle
- Horizontal speed
- Vertical speed
- Elevation

In addition, it can display top and side views of the jump, overlay the jump on a map and even display synchronized video.



Paralog

Data from FlySight can be imported into Paralog, As well as producing 2D plots from logged data, Paralog can also produce 3D jump profiles.

Judge's responsibility re PLD's and equipment inspection

The judge attaches the device onto the jumper's equipment with the antenna having a clear view of the sky, (on the helmet). It is then sealed in place, with a piece of visible tape

The judge escorts the competitors to the a/c and turns on the PLD, ensures the marked wingsuit is worn, and identifies that the competitor is wearing and audible altimeter.

Immediately after landing, the competitor returns the PLD used on that jump to the judge, who then turns it off. The data is then downloaded and saved (scoring). This scoring process is supervised by at least two WS Judges. The PLD's are kept in their chargers when not being used.

If the seal is found to be broken after the jump, and if in the opinion of a Judge this was not caused by circumstances beyond the control of the competitor, then no rejump will be awarded and the competitor will receive a score of zero for that jump. If the PLD malfunctions, and in the opinion of a Judge the malfunction was not caused by action or interference by the competitor, then the competitor will be given the option of making a rejump or receiving a score of zero for that jump.

Determination of the Winners

Each task in each round is scored based on the top score of the task performed in that round. The top result is scored 100%. The other results are scored as a percentage of the top score.

All rounds for each task are averaged for each competitor for an intermediate result of the task.
The three intermediate results for each task for each competitor are added and rounded to one decimal place to give the total result for the competitor.

The total result for the competitor determines the ranking.

The Acrobatic Event
(Handouts: for review and discussion.)
Appendix A - Basic orientations, body positions and definitions
Appendix B - Acrobatic Wingsuit Flying Compulsory Sequences
Appendix C - Acrobatic Wingsuit Flying Judging Criteria
Appendix D - Acrobatic Wingsuit Flying Judging Form

Objective
The objective is for a team to perform a sequence of maneuvers (compulsory or free routine) in wingsuit flight.

Program
The competition consists of six rounds (four compulsory and two free routine rounds)
The order of the routines are: F-C-C-F-C-C (C = compulsory; F = free).

Exit Altitude, Working Time, Deployment Altitude
The exit altitude is 13,000 AGL, working time is 65 seconds, and deployment altitude may not exceed 5000ft. AGL.

Equipment
Competitors must jump the same model wingsuit throughout the event.

Acrobatic Wingsuit Flying Teams
Are composed of two (2) performers and a Videographer.

Roles
Competitors may change their role in the team from jump to jump; however, they may only perform one role (Performer A, Performer B, Videographer) during a jump.

The performer (defined as Performer A, Performer B) who executes the first maneuver in each compulsory routine is defined as Performer A; this establishes the performer's role in the sequences (described in Appendix B) for the remainder of the routine

Compulsory Routines **(*hand out: appendix to rules showing sequences and descriptions.)***
- The Compulsory Routines consist of two Compulsory Sequences, (determined via random draw)
- Compulsory sequences may be repeated until the end of working time.

Free Routines
- The content of the Free Routine(s) is chosen by the Team and may or may not include grips.
- The Team may perform the same Free Routine in each Free Round.
- Teams may give the judges a description of their Free Routine(s) before the start of the competition. Deviation from the described Free Routine will not influence the scoring.

Videographer
The Videographer is part of the team and must film the "slate" sheet showing the team and round number, just prior to exit. The team's video recording must continue from team/round identification through the exit and the jump without interruption and must show the start of working time. His performance and filming techniques are used in determining the team's score.

Rejumps
- Insufficient video evidence: The equipment is handed over the Video Review Panel for review.
- A rejump may be awarded for meteorological conditions or a cause beyond the team's control.
- A rejump will not be awarded for a cause that could be controlled by the team. This includes intentional abuse of the rules, contact or other means of inference between performer(s) and/or the videographer, problems with a competitor's equipment (excluding air-to-air video equipment).
- Adverse weather conditions during a jump are not grounds for protest. However, a rejump may be granted due to adverse weather conditions, at the discretion of the Chief Judge.

Working Time
The evaluation of each sequence will take place during the full working time but may cease before the end of working time if the team abandons the performance requirements for the required routine

Judging procedures
Five judges evaluate the routine. A maximum of three viewing (with an optional 4th may be allowed by the EJ.) All viewings will be at normal speed

Scoring Compulsory Routines
- The Routine is evaluated using three (3) criteria: style, number of grips and camerawork.
- Judges will give the style and camerawork a point score between zero and ten (between 0 and 10, up to one decimal point), based on the guidelines in PIM4B. *(Handout and discussion)*
- For each maneuver omission, 1.5 points will be deducted from the style point score otherwise given.
- Judges give one point for each scoring grip performed in the routine within the working time of each round. Teams may continue scoring by continually repeating the sequences. Scoring grips must be clearly presented (pay particular attention to the definition of a grip)
- For each grip omission one (1) point will be deducted from the total. If an infringement in the scoring formation of a maneuver is carried into to the next grip this will be considered as one infringement only, provided that the intent of the maneuver requirements for the next formation is clearly presented.
    - A majority of Judges must agree in the evaluation in order to credit the scoring grips, assign an omission, or determine an NV situation.
    - The score given for grips shall be in whole integers only. The minimum score for any of the criteria is zero points.

Scoring Free Routines
- The Routine is evaluated using three (3) criteria: style, dive plan and camerawork.
- Judges will give each of the above three criteria a score from zero to ten (between 0 and 10, up to one decimal point), based on the guidelines in PIM4B *(Handout and discussion)*

Score Calculation
- The team's score for a round is calculated by discarding the high and low scores and averaging the three remaining scores, rounded to one decimal place.
- The team's score for grips (compulsories), style (all rounds), dive plan (free round) and camera (all rounds) will be weighted 0% to 100% for each criteria between all teams for that round, the highest score defining 100% (100), and a no-score being 0% (0). A total score for a round is then calculated by adding the three weighted percentage scores for that round.
- The team's final score for the event is the sum of the total scores from all completed rounds.

Other Judging responsibilities
One or more individuals, supervised by the Chief Judge (or trainees under the supervision of the Chief of Judge Training) may support the judges in equipment, device and data management.

One or more qualified individuals, supervised by the Chief Judge, must observe the competitors during their descent and on opening. The observer must check for any conditions or incidents that might constitute grounds for a re-jump and/or disqualification for safety reasons. A written record must be made of any unusual observations or incidents.

CHAPTER 5 – JUDGING EQUIPMENT

The equipment needed for judging a parachute competition ranges from the very simple to the technically sophisticated (pencils and score sheets to electronic pad and video equipment).

Accuracy Events

The equipment required to conduct the accuracy event is as follows:

a) electronic scoring pad, with read-out
b) fichets (at least three)
c) 10 meter measuring tape
d) red flag (for wave-off)
e) smoke bombs (if available)
f) anemometer and mounting pole
g) Wind warning device (i.e. whistle)
h) sensitive windsock (streamer on pole)
i) windsock (non-sensitive)
j) wind drift indicators
k) ground to air radio
l) ground to ground radios
m) stop watches
n) observing and anemometer Judge recording sheets
o) recorder score sheets
p) master score sheet
q) tuffet –perhaps not essential but much appreciated by accuracy jumpers

Photographs of some of this equipment are shown in the Diagram Folder.

Electronic Pad
The Judges do not need to know the precise technical characteristics of the automatic (electronic) scoring pad, but must know how to set it up for operation and must understand how to operate it during the accuracy events. A description of the pad has been included in the section on individual accuracy, so no further explanation will be given.

Anemometer
The anemometer should be mounted on a pole, away from other objects to eliminate interference from turbulence or sheltering, at a height approximately equal to canopy height when the jumper is landing. The ground wind that is measured is that at canopy height. The anemometer used must be sensitive enough to measure unit changes of up to 20 m/s. Care must be taken in assembly or dismantling, so the moving parts (wind cups) are not damaged.

Windsocks
The sensitive windsock is extremely important as it shows the competitor the direction and small variations in wind close to the target while making the final approach to the target. A description of this windsock is found in PIM4A. In the event such a windsock is not available, its function can be performed by a "wind drift indicator" (crepe paper) mounted on a pole in the same location. This will also indicate slight variations in and direction of wind close to the target area.

Ground to Air Radio
This should be a standard multi-channel ground station radio, together with the correct power source.

Stop Watch
In order to provide accurate timing, the Judge's stop watch should be digital (electronic) able to measure to $1/100^{th}$ of a second. Anything else simply will not do.

Style Event

The equipment required for this event is as follows:

a) video camera with recording unit
b) large coloured tarp to indicate heading
c) video playback unit
d) video monitors (at least six) or large TV screen
e) Judges' score sheets
f) master score sheet
g) score collation sheet
h) stop watches (1/100th second)
i) ground to air radio

Video Camera Unit
This must be specifically assembled for filming freefall parachuting. It requires a secure tripod or other specially manufactured mounting that will provide both mobility and steadiness. The picture must not be effected by vibrations or shaking. The tripod must indicate angle of elevation of the camera lens.

The camera, which will be used outside, must be sealed against dust and must be able to withstand being exposed to sunlight for long periods of time – a cover is recommended.

The lens is the most important part and should be of the order of 1000 to 1200 mm. If it has a zoom capability, this will greatly facilitate the judging of style on exit.

Video/DVD Playback
This should be of good quality and should have the following capabilities:
a) slow motion (1/2 speed)
b) normal speed

Viewing
The video monitors should be less than 19". A large screen TV or screen and overhead (LCD) projector may be used instead of monitors.

Freefall and Canopy Formation Events

a) 3 computers (one for dubbing, one for playback, one for scoring + USB's
b) An overhead projector and large screen , or individual monitors, or a large screen TV
c) Electronic Scoring System ("In-Time" system is described below)

Canopy Piloting Event

a) The Course lines + stakes and bungee cords (See PIM4A for dimensions and other info)
b) Course markers (buoys and bungees)
c) Cameras (4 plus back-up) (plus extra batteries) and memory cards
d) Metric tape measures (300 m.).
e) Flash cards showing point values
f) Whistle or other sound making device
g) For the Speed event - sensors
h) For the distance event - orange spray paint to mark edges of course
i) Wind socks, streamers
j) Anemometer (ideally, one that prints/records at time of landing

Wingsuit Event

Performance:

a) PLD's
b) Visible tape to seal PLD's
c) Computer and Licenced Paralog software
d) Plastic seals for inspected wingsuits.
e) Clipboards
f) Aerial photo (laminated) and non-permanent markers

Acrobatic:

a) Similar to Freefall equipment requirements
b) Also, Plastic seals for wingsuits

In-time Scoring System: *(see Diagram folder for images of screen)*

At present, CSPA has ownership of a license to operate an electronic scoring device called "In-time Scoring", a system designed by "Namespace Technologies" (Nspace) from South Africa. It is a multi-discipline system which can be used to judge and score Formation Skydiving, Canopy Formation, Artistic Events and score Canopy Piloting.

The "Server" stores the video files, coordinates the running of the competition video while the judges score, as well as communicates the scores to the event judge as they are applied.

The "Dubber" is where videographers download their jumps to the server in digital format.

The "Controller" is the Event Judge's console and lets the EJ manage the judging session. It also allows the EJ to manage the event and results.

The "Audience" manages the replay, live replay and direct judging feed which is viewed by the public and competitors on separate monitors.

The "Client" is for the Video-Judged events. Each judge on the panel uses this software for scoring. For example, in the FS event: The judge will press a pre-assigned key on the keypad (i.e. "x") as the team exits the aircraft. The judge will then continue to press this key for each correct formation that is built. For an incorrect formation, the judge will press a second key (i.e. "c"). The system will calculate the average start times of each judge and will freeze frame the video at the appropriate time (i.e. after 35 seconds for 4-way). At this point the judge may use the keypad and mouse to make any changes to his/her "scoresheet". The EJ sees all the scores, changes, etc. as they are made.

CHAPTER 6 – RE-JUMP REQUESTS AND PROTESTS

Before continuing with this section, the Course Conductor should review that part of the Competition Manual dealing with rejumps. (PIM4B, GS, Ch.5).

The basic philosophy behind the granting of a rejump is whether the competitor performed the jump with an equal and fair opportunity to demonstrate his skill, within the rules governing the event. Each competitor should be consistently treated within the limits prescribed.

There are three stages to the process:

1) If a judge observes a circumstance or situation that would merit a rejump for the competitor (i.e., winds over the limit in the accuracy event), he should inform the Chief or Event Judge of this fact. The latter would convene the Judges involved in the event to discuss the matter and make a decision. If a rejump is granted, the competitor will be informed and will have the option to accept or refuse the rejump. If he accepts it, he must make it and may not later change his mind.

2) The competitor may request a rejump if he feels that his performance has been impaired by circumstances beyond his control. He will explain his reasons to the Event Judge, who will convene a meeting of the Judges involved in the event in order to make a decision.

3) It should always be remembered that the granting of a rejump rests solely on the interpretation of the rules and the underlying principles. It should not be based on emotion or sympathy as this introduces an element of subjectivity. Judges must be consistent and objective, so that each competitor is treated fairly and equally. If the jump was performed in accordance with the prescribed rules, no rejump would be granted.

If the competitor is dissatisfied with the Judges' decision, he may then make a written protest to the Competition Jury for a rule interpretation. The protest must disclose all pertinent information and must state the rule (or rules) on which the protest is based.

The Competition Jury is normally composed of three to five experienced non-competitors who have no other responsibility in that event. The main duties of the Jury are to see that all competition jumps are made in accordance with the prescribed rules and regulations and that decisions made by the Judges or Competition Staff are in accordance with the prescribed rules and regulations.

They also act as the "court of final appeal" for rejump requests by competitors and any decisions handed down by the Jury are final and without appeal to any other authority.

It must be remembered at all times that Judges are concerned with fairness, consistency and objectivity within the rules. With proper organization and application, rejumps can be kept to a minimum, but it must be remembered that rejumps may occur due to circumstances beyond any particular person's control.

Examples of reasons where rejumps may be granted:

1) Accuracy Event
   a) canopy malfunction or steering problem (not self-induced)
   b) upper wind change, so that indicated exit point is no longer valid
   c) ground wind change (speed and direction) beyond limits provided
   d) interference between competitors

2) Style Event
   a) incorrect exit point (when under ground control)
   b) drift in freefall (when under ground control)
   c) not seen by video (when under ground control)

3) Formation Skydiving
   In a NV situation, the video evidence will be considered insufficient for judging purposes, and the Video Review Panel (VRP) will assess the conditions and circumstances surrounding that occurrence. In this case a rejump will be given unless the VRP determines that there has been an intentional abuse of the rules by the team, in which case no rejump will be granted and the team's score for that jump will be zero.

4) Canopy Formation
In an NV Situation whereby formations, inters, or total separations are not visible on screen due to meteorological conditions (like rain, clouds, sun, etc.) or factors relating to the videographer's freefall video equipment that cannot be controlled.

5) Artistic Events
In the case the VRP determines that the video's evidence insufficiency is due to weather conditions, or any other cause not controllable by the Team, a rejump will be given.

6) Canopy Piloting
A competitor experiencing a control problem or a malfunction requiring the use of the reserve canopy must make no attempt to negotiate the course and must utilize an alternate landing area if accessible. A competitor will be granted only one re-jump during the competition, by reason of the above-mentioned problems.

If the winds exceed the maximum limit or the competitor experiences adverse weather or wind conditions as determined by the Chief Judge or Event Judge the competitor may be offered a re-jump.

7) Wingsuit
In a NV situation due to meteorological conditions (as in #4 above). If another electronic device (worn in accordance with the competition rules PIM4B 3.7.3) affects the PLD, a rejump may be granted. If the PLD malfunctions and there is no evidence of interference from the competitor.

The following are not reasons for a rejump in the freefall events:

a) a parachute malfunction on opening – this has no bearing on the jump itself
b) equipment problems during freefall – this is to prevent a self-induced problem in the event the competitor is performing badly.

CHAPTER 7 – JUDGES RATING PROGRAM

The administrative regulations for Judges' ratings are given in PIM4E *(review in class)*

Judges are rated according to experience and skill level into four category levels:

Provincial
Provincial with Portfolio (PWP)
National
FAI

The qualifications for the Provincial, PwP and National ratings are set by CSPA, while the FAI rating is governed by the regulations in the Sporting Code, Section 5, prepared by the International Parachute Commission (IPC) of the Federation Aeronautique Internationale (FAI).

The philosophy of the rating program requires a logical pattern of progression, requiring attendance at training courses and judging a number of competitions and jumps in a certain period of time.

In addition to the requirements to achieve a Judge rating, it is necessary to keep current and active. The reason for this is that the competitors, who spend time and money (in most cases, their own) in their training and competition activity, deserve to be evaluated by Judges who have maintained their proficiency level. Log books are kept as a record of judges' activity. (Described in PIM4E)

The annual validation requirements are not onerous and do not present any difficulty for a moderately active and interested Judge.

It should be noted that the application for each level of Judge's rating is to be countersigned by a Judge having a higher rating. This is to ensure that the candidate Judge has knowledge of judging (beyond that of technical evaluation) commensurate with the rating being applied for.

The difference between the ratings is one of experience and skill, since the basics are common to all levels.

(The Judge's Seminar will be covered in this section)

CHAPTER 8 – DUTIES AND RESPONSIBILITIES OF A PRINCIPAL JUDGE

Once a Judge's rating has been obtained (and even before) you will be called upon to be a Principal Judge at a competition (club or provincial level). What are your duties and responsibilities?

Prior to the Competition

- You will be contacted by the Chief Judge to determine your availability for the competition.
- Make your travel arrangements as advised by the CJ, and provide him with your travel plans (self-driving, flight itinerary, etc.,).
- The CJ will advise you of the transport (airport pick-up) and accommodation arrangements, and what equipment to bring (stopwatches, rules, etc.).
- You will be advised of the location and time of the Judge's Conference
- Practice, practice, practice……! "Warm-up" for the competition by viewing jumps at home prior to coming to the competition and familiarize yourself with the rules.

At the competition

- Be on time – always be aware of stand-down calls.
- Be mentally and physically alert.
- Carry out duties assigned to you, even if they appear to be menial tasks
- Help with equipment. Ask the EJ what you can do to assist (do not wait to be asked).
- Be humble. Don't be superior to other, less experienced judges
- Be professional. Respect is gained in how you handle stressful, or sub-standard conditions.
- Pay attention to the CJ / EJ's instructions and requests.

During the judging process

- Avoid unnecessary speech or other disturbing behaviour.
- Avoid making undue noises (laughter, sighs, or comments) while watching a jump to not give clues or hints to the other judges.
- While judging, keep your eye on your own monitor and do not peek at your neighbour's scores.
- Do not disclose or discuss scoring information until scoring is completed.
- Be alert for possible rejump circumstances
- Concentrate on the task of evaluation
- Never get flustered - keep cool, calm and collected

Confidentiality

- After you leave the judging area, never discuss the scoring of a jump with anyone outside the judging staff. This is the responsibility of the CJ and/or EJ.
- Do not discuss other Judges' assessments with competitors

Teamwork

- As a principal judge, you are part of a team. Be respectful of one another.
- If you have a disagreement with another judge, go first to that person.
- Avoid criticizing other judges, publicly or privately. In fact use every opportunity to encourage cooperation and support for each other.
- Remember that every judge, including you, will make a bad decision at one time or another.

Interacting with Competitors

- If a competitor has a question regarding the rules or the dive sheets, refer him to the EJ.
- Do not reveal a score or assessment until the scores have been officially posted.

In addition to all of the above, you should always remember that many competitors spend an inordinate amount of time and money on jumping and training and they deserve competent, efficient and consistent judging. This must be uppermost in the Judge's mind at all times. Therefore,

BE FAIR
BE CONSISTENT
BE WITHOUT REGIONAL OR NATIONAL BIAS

You should also always be working to improve your own performance level, both for self-satisfaction and for the benefit of the competitors.

You will do all these things and be dedicated and conscientious, but you will receive little in return, other than the satisfaction of knowing you have done a good job.

The end, or maybe the beginning!